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Northwestern University Bulletin

SCHOOL of COMMERCE

Evening and Day Courses
1914-1915



NORTHWESTERN UNIVERSITY BUILDING
LAKE AND DEARBORN STREETS, CHICAGO

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Northwestern University

SCHOOL of COMMERCE

Announcement

1914-1915



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CONTENTS

CALENDAR	3
FACULTY	4
SPECIAL LECTURERS	6
THE SCHOOL OF COMMERCE.....	7
COURSES IN ADMINISTRATION, ACCOUNTING, ADVERTISING, BANKING, FACTORY MANAGEMENT.....	10
SCHEDULE OF EVENING CLASSES.....	11
DESCRIPTION OF EVENING COURSES.....	12
GENERAL INFORMATION, EVENING SCHOOL	
Entrance Requirements	43
Diploma in Commerce.....	43
Registration	44
Joseph Schaffner Prize.....	45
Scholarships	45
Bureau of Employment.....	45
Degree of Certified Public Accountant.....	46
Students' Organizations	46
Tuition	47
Alumni	49
DAY COURSES	
Degrees: Bachelor in Business Administration and Bachelor of Science	50
Schedules	52
Description of Day Courses.....	57
REGISTER OF STUDENTS.....	69
INDEX	79

June 9 Wednesday. . FIFTY-SEVENTH ANNUAL COM-
MENCEMENT

Faculty

Abram Winegardner Harris, Sc.D., LL.D.

President of the University

Willard Eugene Hotchkiss, Ph.D.

Dean and Professor of Economic and Social Science

Arthur Emil Swanson, Ph.D.

Director of Evening Classes; Assistant Professor of Economics and
Business Organization

Neva Olive Lesley

Secretary

Walter Dill Scott, Ph.D.

Professor of Advertising

Earl Dean Howard, Ph.D.

Professor of Banking and Finance

Frederick Shipp Deibler, Ph.D.

Professor of Economics

Alfred William Bays, B.S., LL.B.

Professor of Business Law

Arthur Edward Andersen, C.P.A.

Assistant Professor of Accounting

Walter Edward Lagerquist, Ph.D.

Assistant Professor of Economics and Commerce

Horace Secrist, Ph.D.

Assistant Professor of Economics

David Himmelblau, B.A., C.P.A., B.B.A.

Instructor in Accounting

Arthur T. Grossman, B.A.

Instructor in Accounting

Henry Post Dutton, B.E.E.

Instructor in Factory Management

Charles Merle Ruth, LL.B.

Instructor in Business Law

Michele A. Vaccariello, B.A.

Instructor in Commercial French

Andrew Thomas Weaver, M.A.

Instructor in Public Speaking

William Dunton Kerr, A.B., LL.B.

Lecturer in Transportation Law

Walter Kay Smart, Ph.D.

Lecturer in Business English

Thomas Lutz Stitt

Lecturer in Foreign Trade

Walter Sheldon Tower, Ph.D.

Lecturer in Resources and Trade

Christian John Bannick

Assistant in Accounting

Joseph Henry Gilby, C.P.A.

Assistant in Accounting

Special Lecturers

1913-1914

John J. Arnold

Vice President and Manager of Foreign Department, First National Bank

Willard C. Brinton

Engineer, New York City

David P. Chindblom

Assistant Secretary, The National Industrial Traffic League

John Alexander Cooper, C.P.A.

President, Illinois Society of Certified Public Accountants

George J. Cowan

Staff, "The Dry Goods Economist"

Herbert G. P. Deans

Manager Foreign Department, Merchants Loan & Trust Company

Edward P. Farwell

Local Manager, Babson Statistical Organization

H. H. Garver

Commercial Agent for the Bureau of Foreign and Domestic Commerce
of the United States Department of Commerce

Edward E. Gore, C.P.A.

Barrow, Wade, Guthrie & Company, Vice President Chicago Association
of Commerce

Marcus Hill

Western Manager, American Lithographic Company

Harry R. Kern

Assistant Credit Manager, Hart, Schaffner & Marx

Albert C. MacMahan

Sales Department, National Cash Register Company

Anderson Pace

Industrial Commissioner, Chicago Association of Commerce

G. Raymond Schaeffer

Vice President, Charles Daniel Frey Company

Robert Schreffler

Editor "The Dry Goods Economist"

W. Ernest Seatree, C.P.A.

Resident Partner, Price Waterhouse & Company

Edward M. Skinner

General Manager, Wilson Brothers

Thomas L. Stitt

Attorney, Water and Rail Transportation and Commerce

Howard B. Stone

Assistant Manager, Chicago Agency, Emerson Efficiency Company

Thatcher F. Sweat

Western Manager, Caldwell Shipping Company

George Landis Wilson

President, Chicago Sales Managers Association

George Woodruff

President, First National Bank, Joliet

The School of Commerce

Northwestern University School of Commerce was organized through the co-operation of Northwestern University with the Chicago Association of Commerce, the Illinois Society of Certified Public Accountants, and the Chicago Industrial Club, in June, 1908. The following Chicago business men indicated their interest and faith in advanced business education by assuming financial responsibility for the School during the first three years of its existence:

Alfred L. Baker	L. Wilbur Messer
Adolphus Clay Bartlett	E. M. Mills
Harold Benington	S. Roger Mitchell
Charles L. Brown	Arthur G. Mitten
Jonathan W. Brooks	Luman S. Pickett
R. S. Buchanan	Ernest Reckitt
Edward B. Butler	William Hinman Roberts
J. Fred Butler	Isadore B. Rosenbach
Fayette S. Cable	Albert W. Rugg
Eliada J. Cady	Joseph Schaffner
James Robert Cardwell	Charles H. Schweppe
John Alexander Cooper	John W. Scott
Joseph H. DeFrees	Elijah W. Sells
A. Lowes Dickinson	W. Ernest Seatree
Herman J. Dirks	Archibald Wilkinson Shaw
George W. Dixon	George W. Sheldon
William A. Dyche	Edward M. Skinner
Charles W. Folds	Allen R. Smart
David R. Forgan	Mason B. Starring
Edward E. Gore	Joseph E. Sterrett
Richard C. Hall	Homer A. Stillwell
William F. Hypes	Seymour Walton
J. Porter Joplin	Harry A. Wheeler
William Kendall	F. F. White
Edward Chester Kimbell	John E. Wilder
Charles S. Ludlam	T. Edward Wilder
John Lee Mahin	Orva G. Williams
Charles J. Marr	Henry W. Wilmot
Charles A. Marsh	W. A. Winterburn
James Marwick	Arthur Young
Stephen T. Mather	

THE AIM OF THE SCHOOL OF COMMERCE

The instruction in the School of Commerce is based on three fundamental aims: first, to give students a comprehensive, many-sided survey of business facts and experience; second, to develop a power of accurate analysis which will prepare the student to think complicated business problems through to the end; third, to maintain an atmosphere in which large business problems will be regarded in a public-spirited way.

The instruction is so planned as to train men for business in the same manner as men are trained to become physicians and lawyers. Business facts are assembled and studied, and business principles ascertained and emphasized in the same way that facts and principles are treated in other fields of knowledge.

SUCCESSFUL BUSINESS MEN, TRAINED MEN

Men who have been successful in a legitimate business have in some way been trained for that success. They may have been trained by the business itself, but if they have, years of experience have brought them to the point where they observe certain definite principles of business action. Consciously or unconsciously, these principles are applied to the solution of problems just as principles are applied to the solution of problems in law, medicine, and other professions.

TRAINING BY EXPERIENCE WASTEFUL

To learn from trial and error, from the mistakes of the daily routine, is costly. Only a short time ago, lawyers, doctors and engineers were being trained in the school of experience. Early chemists were limited to the results of their individual observations and research. But today no one would think of sending a prospective chemist to a laboratory to work out his preparation at random without the benefit of the experience and the scientific principles already achieved. As the principles of chemistry and other sciences have been derived from experiments and observations of individuals, so there is need of bringing together the results of past experience in business and of making available for the future the principles of business management which successful men have developed. The wastefulness of leaving each individual to learn from costly experience what others have discovered over and over again, has brought the keenest executives to realize that business training is a fundamental necessity.

TRAINING OF FUTURE EXECUTIVES

The policy of the School of Commerce is to develop as rapidly as possible such training as is calculated to meet the need of future executives. The work of the specialist is not minimized, but it is recognized that the training of a specialist is subordinate to the training of the executive.

KIND OF MEN BENEFITED BY THE SCHOOL

More than 650 students were registered in evening courses in 1913-1914. Among these students the following groups were represented: 1. Persons with a fair preparatory education who desire to supplement their experience with specialized business studies in order to qualify for responsible positions. 2. Persons holding fairly responsible positions, who need the broadening influence of a general business training. 3. Persons holding exceptionally responsible positions who would profit by a special course in their field. 4. Recent college graduates, whose college course did not include a business training, and who now find themselves handicapped by their lack of business knowledge. 5. Mature men who in some measure have overcome the handicap of an inadequate general education but who want both to enlarge their general education and to secure specialized training in order to increase their opportunity for growth.

INSTRUCTION BY BUSINESS MEN AND TRAINED TEACHERS

The teaching staff of the School consists of: 1. Persons whose profession it is to teach and who are devoting their lives to the study of business. 2. Successful business men who are secured for special courses in subjects upon which they are able to speak with authority. Students therefore are in a position to benefit from contact both with the trained investigator and the man of affairs.

LOCATION AND EQUIPMENT

Northwestern University is in an exceptional position to carry on university training for business. The location of its building in the heart of "THE GREAT CENTRAL MARKET OF CHICAGO" makes available unexcelled material for study and observation.

In addition to its own library, provided through the generosity of certain Chicago business men, the Elbert H. Gary Library of Law, housed in the same building, is probably the most complete west of the Allegheny Mountains. Besides its own facilities, the School is within five minutes walk of the Public Library of Chicago and of the John Crerar Library, to both of which students have free access.

EVENING COURSES IN ADMINISTRATION, ACCOUNTING, ADVERTISING, BANKING, AND FACTORY MANAGEMENT

The following plan of study is recommended for persons who wish to pursue a regular evening course in Business Administration, Accounting, Advertising and Selling, Banking and Finance, or Factory Management.

Persons not desiring to take a regular course may register for selected subjects.

BUSINESS ADMINISTRATION

First Year

Economics
Accounting I
Business Law I and V
English II

Second Year

Business Psychology
Money and Banking
Business Organization
Commercial Organization
Business Law III and IV

Third Year

Corporation Finance
Foreign Trade
English III (Public Speaking)
Foreign Language
Industrial Consolidation

Fourth Year

Business Statistics
Resources and Trade
Foreign Language
Factory Management
Transportation

ACCOUNTING

First Year

Accounting I-A or B, or Bookkeeping
and I-C
Business Law I and II
Economics
English I

Second Year

Accounting II-A or B
English II
Money and Banking
Business Law III and IV

Third Year

Accounting III
Business Statistics
Corporation Finance
Business Organization
Business Law V

Fourth Year

Cost Accounting or Public Service
Accounting
Factory Management
Industrial Combinations
Resources and Trade

ADVERTISING AND SELLING

First Year

Business Psychology
English II
Economics

Second Year

Business Organization
Commercial Organization
Accounting I
Business Law I and II

Third Year

English III
Business Statistics
Foreign Trade
Transportation

Fourth Year

Industrial Combinations
Resources and Trade
Money and Banking

BANKING AND FINANCE

First Year

Economics
English II
Business Law I and IV

Second Year

Money and Banking
Accounting I
Resources and Trade
Business Psychology

Third Year

Corporation Finance
Business Organization
Commercial Organization
Business Statistics

Fourth Year

Industrial Combinations
Business Law III and V
Foreign Language

FACTORY MANAGEMENT

First Year

Economics
Accounting I
Business Organization
Commercial Organization

Second Year

English II
Accounting II
Business Statistics

Third Year

Cost Accounting
Factory Management
Business Law I and II

Fourth Year

Industrial Combinations
Corporation Finance
Business Psychology

Schedule of Evening Classes

NORTHWESTERN UNIVERSITY BUILDING, CHICAGO

	MONDAY	TUESDAY	WEDNESDAY
AFTER- NOON			Resources and Trade 4:30-6:30 (1st sem.) Industrial Consolidation 4:30-6:30 (2nd sem.)
7 P. M. TO 9 P. M.	Accounting I-A	Business Law I & II	Accounting III
	Accounting II-A	English II	Economics
	Cost Accounting	Corporation Finance and Investment Securities	Business Organization (1st sem.) Commercial Organiza- tion (2nd sem.)
	Business Psy- chology	South American Trade (1st sem.) Foreign Trade (2nd sem.)	English I
		Commercial French Industrial Relations (1st sem.) Accounting I-C (2nd sem.)	Public Speaking

	THURSDAY	FRIDAY	SATURDAY
AFTER- NOON			C. P. A. Quiz 2-4 1st semester 2-5 2nd semester
7 P. M. TO 9 P. M.	Money and Banking	Accounting I-B	
	Business Law I & V	Accounting II-B	
	Economics	Business Law III & IV	
	Bookkeeping	Factory Manage- ment	
	Transportation (1st sem.) Interstate Commerce (2nd sem.)	Statistics (1st sem.) Accounting I-C (2nd sem.)	

Description of Evening Courses

Accounting*

One of the results of commercial development during the last generation has been the growth in importance of the accounting profession. A knowledge of accountancy is becoming almost indispensable to the successful conduct of every business. Business efficiency demands, moreover, that the professional accountant shall be a man of broad and fundamental training and of recognized professional standing, parallel to that of the lawyer and the physician. The close connection of the School of Commerce with the leading men of the profession enables it to set a high standard of professional training.

Accounting I—First Principles

Section A, Monday evenings, 7 to 9 Mr. Grossman

Section B, Friday evenings, 7 to 9 Mr. Gilby

This subject is an introduction to the study of Accounting adapted primarily to the demands of general business; a preparatory work for students who propose to specialize in accountancy. It aims to give students an understanding of fundamental principles and ability to apply them. Beginning with a single-entry set of accounts, principles are developed until a modern accounting system has been worked out in detail. As additional work, problems and questions are assigned for home study.

The class is divided into Sections A and B; instruction is the same in both sections.

Open to students with training equivalent to the Bookkeeping Course, page 19.

FIRST SEMESTER

(a) *Principles of Single Entry Bookkeeping.* Books used. Ascertaining profits and preparation of Statement of Assets and Liabilities; changing to double entry.

(b) *Principles of Double Entry.* Application in single proprietorship accounts. Real, nominal, personal and impersonal accounts; principles of classification; capital vs. revenue expenditure; closing books of original entry; preparation of Profit and Loss Statement and Balance Sheet. Change to partnership form of organization.

(c) *Partnerships.* Articles of Partnership; interest on capital;

*All Accounting students are required to pay a lecture note fee. See Fees, page 47.

drawings; partners' loans; various methods of dividing profits. Columnar books of original entry. Sales and Purchases; return sales and return purchases. Subdivision of ledgers. Imprest system; consignments; construction of controlling accounts; cash, trade and bank discounts; notes and bills of exchange; contingent liabilities; accommodation paper; branch accounts; fire loss; valuation of fixed and current assets. Closing partnership accounts.

SECOND SEMESTER

Corporations. Opening accounts; corporation records. Kinds of capital stock; treasury, unissued, unsubscribed, and donated stock. Stock subscriptions; discount and premium on stock and bonds issued; company's stock or bonds reacquired. Surplus and capital surplus. Declaration and payment of dividends. Sinking funds. Good will.

Voucher System; special manufacturing accounts; productive and non-productive labor; classification of indirect factory expenses; perpetual inventory; theory of and provision for depreciation.

Accrued income; reserve accounts for accrued liabilities and estimated losses; deferred charges. Closing corporation accounts. Preparation of detailed revenue statements; and more modern statement of Profits and Income.

Merger and holding companies; stock distribution; necessity for consolidated balance sheets for holding companies.

Accounting I-C

Mr. Grossman

Tuesday and Friday evenings, 7 to 9, second semester

The regular Accounting I course given two evenings a week during the second semester.

Accounting II—Intermediate

Mr. Himmelblau

Section A, Monday evenings, 7 to 9

Section B, Friday evenings, 7 to 9

This subject is a continuation of Accounting I, intended for students desiring a more thorough knowledge of accounts and auditing for general business training, and for students preparing for the C. P. A. examination. A number of the problems and questions which form the basis of the work are taken from C. P. A. examination papers. The subject matter is treated primarily from an auditor's point of view.

The class is divided into Sections A and B; instruction is the same in both sections.

FIRST SEMESTER

Statement of Affairs and Deficiency Account. Purpose; method of preparation; method of showing creditors' and stockholders' interest in free assets.

Realization and Liquidation Account. Purpose; method of preparation in case of Sole-Proprietors, Partnerships, and Corporations. Entries required to close the books of account.

Manufacturing, Trading and Profit and Loss Statement. Advanced problems.

Statement of Profits and Income. Method of preparation; advantages; problems.

Auditing. Classes of audits; balance sheet, detailed, continuous, and cash audits; objects; advantages; limitations. Qualifications of auditor. Duties and responsibilities of auditor in case of sole-proprietorships, partnerships, and corporations.

Tangible Assets. Land, buildings, machinery, equipment, etc. Verification of existence. Basis of valuation when purchased, donated, or constructed; interest during construction period. Theories of depreciation. Methods of providing for wear and tear, and obsolescence. Fallacy regarding depreciation offset by appreciation. Importance of correct classification of expenditures, between property, operating expense, and depreciation reserve.

Intangible Assets. Patents, copyrights, franchises, and good will. Basis of valuation; appreciation and depreciation; current outlay; extinguishment reserves.

Wasting Assets. Mines, oil wells, and timber lands. Basis of valuation. Extinguishment reserves.

Inventories. Basis of valuation of raw materials, work in progress, finished product, supplies, consignments, sales for future delivery, obsolete material. Extent of verification. Auditor's responsibility as to quantities, prices, footings, extensions.

Receivables. Trade debtors, sundry debtors, rents, notes, unpaid stock subscriptions, installment contracts, overdue accounts. Verification of outstandings by correspondence. Reserves to be provided for cash discounts, allowances, freight, bad debts, collection expenses.

Cash. Verification of bank balances and cash on hand. Detection of "lapping." Verification of Petty Cash. Examination of vouchers. System of payment.

Deferred Charges. Rent, insurance, royalties, advertising, dismantlement of large units before expiration of estimated original life.

SECOND SEMESTER

Capital Liabilities. Verification of outstanding capital stock and mortgage indebtedness.

Current Liabilities. Verification of genuineness of outstanding accounts. Auditor's responsibility for accrued indebtedness not shown by the books.

Contingent Liabilities. Notes discounted, indorsements, unfilled contracts, liens. Methods of verification. Extent of auditor's responsibility.

Sinking Fund Reserve. Purpose; bases; accretions; provisions of trust deeds as affecting accounts; treatment at maturity of indebtedness. Investment of reserve.

The Detailed Audit. Extent of auditor's verification of revenue and expenses.

Executorship and Trustee Accounts. Books required. Accounts of executor or administrator. Legal points to be considered in differentiation of principal and income. Status of the "inventory" in probate accounting. Statement of Charge and Discharge. Purpose; method of preparation.

Statement showing application of funds. Purpose; method of preparation.

Mergers and Consolidations. Determination of basis for merger; allotment of stock for tangible assets and good will. Entries required on books of merged companies. Preparation of Consolidated Balance Sheets. Purpose; method; showing of good will, minority stockholders' interest, intercompany transactions, intercompany profit in inventories.

Accounting III—Advanced Theory, Auditing and Practice

Professor Andersen

Wednesday evenings, 7 to 9

This subject is intended primarily for persons who propose to enter the accounting profession. Students completing Accounting III and the Quiz course should be prepared to take the Certified Public Accountants examination at the close of the year, provided they are otherwise qualified. Problems in practical accounting and questions in theory and auditing set at previous C. P. A. examinations in various states are assigned for home study.

FIRST SEMESTER

Special points to be considered in the audit of municipalities, institutions, banks, investment companies, building and loan associations, insurance companies, land and development companies, stock brokers, publishers, mines, etc.

Contractors' Accounts. Valuation of incompleted work. Accounting methods.

Leaseholds. Basis of valuation and treatment in accounts.

Investments. Classes; valuation; how stated on balance sheet. Investment of reserve funds; income.

Provisional Funds. Principles involved in creation of funds for improvement expenditures, relining blast furnaces, extinguishing value of mineral lands.

Secret Reserves. Arguments for and against; duty of auditor.

Branch Accounts. Reconcilement at head office. Foreign branches. Foreign exchange.

Public Service Corporations. Principal points in accounts of railroad, telephone, electric light, power, and other utilities. Difference between industrial and public service corporation practice.

Cost Accounts. Distribution of factory expenses; allocation of selling, distributing, and administrative expenses. Treatment of rent and interest on invested capital.

SECOND SEMESTER

Consolidated Balance Sheet and Consolidated Statement of Profits and Income. Various methods used in preparation. Intercompany profit; minority stockholders' interests; accumulated deficit or surplus at date of purchase; elimination of intercompany advances and holdings. When is a company a Subsidiary? Dissolution of holding companies. Accounting procedure to segregate intercompany profits.

Statement showing change in financial position and disposition of funds provided by sale of securities, issue of notes, profits from operations, proceeds from sale of assets, and other sources.

Investigations in connection with reorganization or with the sale or purchase of a business; information for prospective creditors, stockholders, litigants. Scope of investigations; differentiated from audits. Revaluation of capital assets by appraiser. Principles of appraisement. Special points to be noted in verification of assets, liabilities and earnings.

The auditor's report. Scope. Method of preparation. Certificates. Form. Qualifications. Preparation of working papers and final accounts.

Systems. Organization; account number scheme; internal check. Comparative Statements of Statistics. Use and value; percentages and comparisons on "per unit" basis. Determination of units. Charts.

Income Tax Law. Preparation of returns.

Minute Books, contracts, trust deeds as affecting accounts.

Professional Ethics.

Open to students with training equivalent to Accounting II.

Accounting IV—Public Utilities

Professor Andersen

Monday evenings, 7 to 9

This subject deals especially with public service corporation accounting practice and factors of valuation of public utility properties. Comparisons with industrial practice are made, and considerable collateral reading is required. Emphasis is placed on utilities in which the enrolled students are interested.

FIRST SEMESTER

Valuations. Purposes; fair value for rate purposes; market value; cost of reproduction; cost of reproduction less depreciation and actual cost as standards for rate making; valuation of land and treatment of appreciation; property donated; property constructed out of surplus earnings; unused property; property acquired in advance of needs; overhead charges.

Working Capital. Methods of determining working capital and court decisions thereon.

Depreciation. Physical and functional; straight line and other methods, maintenance expenditures, and deferred maintenance.

Going Value; going concern value. How determined in purchase and rate cases. Distinction between going value and going concern value.

SECOND SEMESTER

Franchise Value. In rate and purchase cases; theory and appraisal.

Rate of Return. Relation to fair value for rate and purchase purposes; decisions in numerous cases.

Principles of analyzing costs for determination of rates; preparation of financial statements and compilation of statistical data.

Classifications of Accounts. Detailed study of classifications prescribed by the Interstate Commerce and state commissions.

Study of reports submitted by experts on several large properties.

Open to students who have had the equivalent of Accounting II.

Not given in 1914-1915.

Accounting V—C. P. A. Quiz

Professor Andersen

Saturday afternoons, 2 to 4, first semester

Saturday afternoons, 2 to 5, second semester

This class is conducted to prepare advanced students for the Certified Public Accountants examination in May, 1915. Students are trained to apply accounting principles and to work in the classroom under substantially the same conditions as in the examination room. Practical accounting problems, auditing, and theory of accounts are dealt with. Papers set in C. P. A. examinations in Illinois, New York, Pennsylvania, and other states are thoroughly analyzed and discussed. Instruction in the classroom is largely individual. Students' papers are criticized by the instructor. Correct solutions to problems and answers to questions are given in lecture note form for future reference. The last hour of the class session is devoted to an open discussion of the "how" and "why" of the solutions to problems assigned.

To secure the maximum amount of study and application of higher accounting principles, students enrolling in the Quiz class should also take Accounting III unless the latter subject has been taken previously.

Open to those who can satisfy the instructor as to general fitness and training necessary to prepare for the C. P. A. examination.

Accounting VI—Factory Cost

Professor Andersen

Monday evenings, 7 to 9

This subject is intended to give the students a thorough knowledge of cost accounting principles supplemented by an abundance of practical illustrations. Cost Systems of several large and representative manufacturing companies will be thoroughly analyzed and their use and value to the executive officials discussed. The work of the cost accountant and its relation to that of the factory organizer will receive consideration.

The work in the first semester will deal largely with the study of cost finding principles, while that in the second semester will have to do chiefly with practical cost accounting, including the designing of

forms. In both the first and second semesters considerable home study work and collateral reading will be required. The aim of the course is to acquaint the students with modern and up-to-date methods which can be applied in their respective lines of business.

FIRST SEMESTER

Elements of cost—material, labor and expenses. Cost accounting features of purchase, receipt and issue of raw and finished materials—stores systems and perpetual inventories. Distinction between productive and non-productive labor; recording and paying of wages; piece work, profit sharing and premium or bonus systems. Distribution of factory, selling and general administrative expenses and treatment of each class in the accounts. Several methods of distributing factory expenses—direct labor; direct labor and material; machine hour rate and other methods.

SECOND SEMESTER

Treatment of interest and rent in costs. Control of cost accounting by general books of account. Compilation of cost data. System of repair, renewal and construction orders. Special features in the examination of a plant preliminary to designing and installing a cost system. Estimating cost and special order systems. Use and value of graphic charts in the final assembly of cost data and statistics will receive special consideration.

A number of lectures on the various phases of Cost Accounting will be given by practicing cost accountants.

This subject is open only to students who have completed the work in either the Intermediate or Advanced Accounting classes, or who have already had practical experience along cost accounting lines.

Bookkeeping—Theory and Practice

Mr. Bannick

Thursday evenings, 7 to 9

The chief object of the work in Bookkeeping is to train students in general bookkeeping practice in order to prepare them to take Accounting I.

Distinction between debits and credits; principles of single and double entry; summarization of transactions and books required for this purpose; various kinds of information conveyed through ledger accounts; principles of journalizing, with considerable class practice work in the making of journal entries; posting from original books

of entry to ledger and classification of transactions; definition of bookkeeping terms; loss and gain accounts, and method of determining losses and gains; disposition of losses and gains; abstracting trial balances and uses to which trial balances are put; preparation of simple financial statements and final closing of books.

Instruction is largely individual. Problems which form the basis of subsequent discussion in the classroom are assigned for home study.

A semester subject, repeated in the second semester.

Banking and Finance

Money, Banking and Credit

Professor Howard

Thursday evenings, 7 to 9

The subject aims to give the student an acquaintance with the elementary principles and practices of finance, especially as they concern the ordinary business man. A study is made of the causes which bring about the regular swings of prices and periods of alternate prosperity and depression. The student is expected to gain sufficient knowledge of credit and banking to enable him to avoid the commonest errors in managing the financing of ordinary business. Students may enter the class for the whole year or for either semester.

FIRST SEMESTER

(a) *The Economics of Finance.* The place of Finance in our economic system; the financial principles arising from division of labor, private property, organization of industry, exchange.

(b) *The Basis of Values.* The underlying principles of value; capital and income, forms of capital investment—stocks and bonds and their value.

(c) *Money.* The principles of money, a description of our monetary system, compared with that of other countries. The Greenback movement of the 70's, the Free Silver movement, the Gold Standard. Demand and supply of gold; the principles of foreign exchange.

SECOND SEMESTER

Banking. The functions of banks: (1) providing a medium of exchange in the form of bank notes and deposit currency, and (2) acting as intermediary between the capitalist and borrower.

Commercial, investment and savings banks; trust companies and their functions; commercial paper houses.

Regulation of banks by federal and state authority; National Bank Act; Federal Reserve Law.

Bank statements analyzed. Varieties of loans, bank investments, reserves, collections and clearings.

Banking in England, France, Germany and Canada. History of banking in the United States.

The causes which produce the alternate cycles of business prosperity and depression; inflation, financial crises, and monetary stringencies—the extent to which banks are responsible for these conditions.

Corporation Finance and Investment Securities

Professor Lagerquist

Tuesday evenings, 7 to 9

Corporation Finance is given the first semester, Investment Securities the second semester. The work in Corporation Finance must precede Investment Securities unless the student has had work equivalent to Corporation Finance. The following topics are covered:

CORPORATION FINANCE

(a) *The Corporation in Modern Business.* Its place in business; advantages and disadvantages of corporate organization.

(b) *Legal Organization.* Salient points of general laws governing incorporation; essential features in the charter; right of stockholders and directors; internal organization and problems of liability.

(c) *Instruments of Finance.* Classification and examination of the characteristics of stocks and bonds; risk, income, and control; methods by which these securities are floated.

(d) *Corporation Promotion and the Promoter.* Functions of a promoter; methods of his reimbursement; contrast of the old and later forms of promotion; the prospectus; different methods of organization and consolidation; the holding company.

(e) *Underwriting.* Different methods of raising funds for various sizes and kinds of corporations; the methods and forms of syndicate underwriting.

(f) *Capitalization.* Nature; constituent elements; earnings and capitalization; net earnings, original cost, reduplication as a basis of valuation; watered stock; working capital; sources of and provisions for new capital; refunding of debt and provisions for amortization.

(g) *Earnings, Expenses, Surplus.* Determination and disposition of gross earnings; relation of net income to gross income, dividends, operating and maintenance; the source of funds for betterments; the different uses and distribution of surplus.

(h) *Manipulation.* The different methods of manipulation by officers, stockholders, and directors.

(i) *Insolvency, Receivership, and Reorganization.* Causes of insolvency; methods of handling insolvency; receivership, and the duties and powers of receivers; causes, methods and examples of reorganization.

(j) *Special Problems in State Regulation.* Regulation of security issues; corporation taxation; court decisions affecting financial organization.

INVESTMENT SECURITIES

(a) *Investments and the Market.* A consideration of the influence on security prices of the money market, condition of crops, railroad earnings, seasonal changes, financial failures, etc.

(b) *Sale of Securities.* Assignments, transfer and shipment of securities; listed and unlisted securities; organization of exchanges for handling securities; sales by brokerage houses, speculation in securities; effect of all these factors on investments.

(c) *Elements of Ideal Investments.* Security; rate of return; stability; convertibility; marketability and hypothecation.

(d) *Classification.* Classes and general characteristics of investment securities.

(e) *Values of Securities.* Method of computing the value of bonds and stocks; determination of the net income of a bond; amortization of bonds; value of stockholders' rights; value of convertible bonds.

(f) *Civil Loans.* A detailed examination of United States, State, County, City, Town, Tax District, and all forms of municipal and district bonds as investments.

(g) *Corporation Securities.* A consideration of the securities of railroad, steamship, street railway, gas, electric, water and water power companies, real estate, timber and irrigation securities, as investments. A study will be made of all the factors affecting the value and price of these securities. The reports of typical companies will be examined.

Business Law

The work in Business Law is divided into five groups, each group containing topics that are generally of a similar nature.

Business Law I

Professor Bays

Section A, Tuesday evenings } 7 to 9, first semester
Section B, Thursday evenings }

(a) *General Elementary Law.* Legal divisions and legal terminology; definition of rights, wrongs, and remedies; the composition of American law, English common law, constitutional and statutory law; the judicial system and the status of reported decisions and opinions.

(b) *Contracts.* The formation of contracts, including the necessary elements; different kinds of contracts, legality of particular agreements; forms and evidences of contract; the operation of contract, performance, breach; transfer and assignment of contract; damages for breach of contract. Students will be given practice in the drafting of simple contracts covering the several points discussed.

(c) *Agency.* The law of agency as fundamental to partnerships and corporations whose activities are carried on by agents and servants. Law of agency as applied to principal and agent and to master and servant; formation of these relationships and the rights and duties arising in connection with various classes of agency, with factors, brokers and auctioneers.

Business Law I is fundamental and should be taken as a basis of the student's other law work.

The class is divided into Sections A and B. The instruction is the same in both sections.

Business Law II

Professor Bays

Tuesday evenings, 7 to 9, second semester

(a) *Sales of Personal Property.* Characteristics of this form of contract; passing of ownership; warranties, express and implied; rights of third parties; performance and breach of contract as applied to sales.

(b) *Debtor, Creditor, and Bankruptcy.* Rights of creditor against debtor and debtor's property; forms of indebtedness; methods

of enforcing claim; debtor's exemption; discharge of indebtedness; bankruptcy, common law and statutory provision, Federal Bankruptcy Act.

(c) *Trademarks and Unfair Competition.* What constitutes fair and unfair competition; right to copy methods of competitors; trademarks, their legal status; what constitutes infringement. Attention will be given to recent developments, increasing the significance of this branch of the law.

Business Law II should logically follow Business Law I. The topics are of interest to everyone in business life, and should be of special interest to credit men.

Business Law III

Mr. Ruth

Friday evenings, 7 to 9, first semester

(a) *Corporations.* Corporations, comparison with partnerships; legal advantages and disadvantages; charter, how procured; powers and authority of corporation; duties of officers; rights, duties and disabilities of stockholders and directors; ultra vires acts; laws of different states; foreign corporations; trusts and monopolies; dissolution of corporation.

(b) *Partnerships.* Partnerships, their formation; rights and duties of partners; authority to represent firm; sale of interest; dissolution by death, withdrawals and other ways.

The law of business associations is covered by these topics. They are manifestly of interest to business men of all grades and kinds of work.

Business Law IV

Mr. Ruth

Friday evenings, 7 to 9, second semester

(a) *Negotiable Paper.* Bills of exchange, promissory notes and checks; elements necessary to negotiability; transfer; responsibility of endorsers; holders in due course; discharge of negotiable paper.

(b) *Suretyship.* Different forms of suretyship and the rights and duties of the parties under each form.

(c) *Banks and Banking.* This subject is supplementary to the law of negotiable paper; it involves in addition the liability of stockholders in banks; organization of banks under national and state laws; duties of bank in respect to depositors and to payees of checks; liability upon collections.

This group covers topics that are of interest and importance to every business man. It may be pursued, with Business Law II, during the same semester to follow Business Law I. These topics are of special value to those interested in banking and allied lines, and are also of importance to the credit man.

Business Law V

Professor Bays

Thursday evenings, 7 to 9, second semester

(a) *The Law of Real and Personal Property.* Estates in real property, sale, mortgage, lease; devolution of title upon death of owner, by inheritance, by will. All the phases of ownership and transfer of real property of importance to the layman are covered. Students will be expected to draft deeds of sale, mortgages and leases.

(b) *Insurance.* Contract of insurance; legal phases of life insurance and property insurance; legal rights under different forms of policy.

This group is of special importance to those whose work concerns real estate,—the broker, the insurance agent, the manager of an estate, etc. It is obvious, however, that every business man should have a knowledge of these subjects, particularly of the law of property.

Commerce

Resources and Trade

Professor Tower

Wednesday afternoons, 4:30 to 6:30, first semester

This subject aims to give the student a thorough knowledge of the resources on which are based the industries and commerce of the United States. Comparisons are made between the resources of this country and of other countries, especially those which are competitors of the United States in the world's markets. Attention is given to conditions which have influenced the development of the various resources and to the proposals for the more economical use of remaining supplies. Special consideration is given to the resources of the Mississippi Valley on which depends much of the present and the future importance of Chicago as a business center.

(a) *Agricultural and Pastoral Resources.* Agriculture as the basis of national prosperity; natural advantages of the United States;

development of farming and grazing; present character, distribution and size of crops and of animal industries; relation of crops and animal products to manufacturing centers and industries; undeveloped agricultural resources.

(b) *Commerce in Agricultural and Animal Products.* Relation of farming and grazing to the growth of commerce; extent and distribution of present commerce; growth of imports of agricultural products.

(c) *Conservation of Soil Resources.* Causes of decreased soil fertility; comparative yields of crops; proposed methods of restoring and conserving soil fertility.

(d) *Forest Resources.* Character and distribution of original forests; causes and extent of deforestation; existing resources; forest products and their dependent industries; commerce in forest products; problems involved in conservation of forests.

(e) *Mineral Resources.* The nature and occurrence of mineral deposits; leading mineral resources, their distribution and extent; conditions affecting the development of mining; leading areas of production; effects of mineral products on manufacturing and on commerce; commerce in minerals; available supplies of critical minerals; proposals for conservation of mineral resources.

(f) *Water Resources.* The industrial importance of water power; amount and location of available power; problems of water power development. The changing commercial importance of navigable inland waterways; the extent and distribution of navigable waterways; problems of waterway development; proposals for improved waterways.

(g) *The Distribution of Manufacturing Industries.* The influence of character and of location of raw materials; effects of fuel and power supplies; relations to markets and to transportation facilities; influence of labor, of capital and of early start; leading manufacturing districts; commerce in manufactures.

(h) *Summary of Foreign Commerce.* Gradual evolution of commerce; factors at work and present trend of development; relation of the United States to foreign markets and to world trade routes; leading wares exported and imported; leading countries traded with and basis of their trade; chief ports of the country; effects of opening the Panama Canal; commercial future of the United States.

South American Trade

Professor Tower

Tuesday evenings, 7 to 9, first semester

This subject is a study of the conditions encountered in foreign commerce, with special reference to the trade with South American countries. The discussion is divided into three parts, and the main topics considered under each head are as follows:

(a) *The Present Status of South American Trade.* The relative importance of the different countries; the chief staples of export and the main classes of imports; the principal commercial centers and internal trade routes; the foreign nations competing for the trade; comparisons with earlier years to illustrate the trend of events; the main details of the trade between the United States and South America.

(b) *Factors in the Development of South American Trade.* The nature of the commodity; questions of literature, samples, traveling representatives, resident agents, commission merchants and branch houses; questions of packing, marking, shipping, insurance, systems of measurement and classification, invoices, fees and customs regulations; routes of shipment, transportation facilities and the matter of United States shipping; port conditions and dock facilities; tariff systems; miscellaneous economic, social, and political factors.

(c) *Trade Prospects in South America.* Resources of the countries; bases of industrial and commercial expansion; effects of expansion on trade possibilities; the relative advantages of the United States and its trade rivals; the most promising sections for commercial activities.

Foreign Trade

Mr. Stitt and special lecturers

Tuesday evenings, 7 to 9, second semester

General discussion of significance of foreign trade. Method of investigating whether a foreign market exists for a class of goods, and where it exists. How a foreign market can be developed: the nature of the article—its uses, possible substitutes, customs, habits, social or economic conditions affecting the possible use in a foreign country. Modification of the articles to meet foreign needs or prejudices and to facilitate shipment. Work of consular service.

International credits; instruments of credit, credit systems, information and sources.

Selling methods in international trade; mail order advertising, exporting houses, foreign agents, branch houses, salesmen and demonstrators, trade papers, exhibits; associations; time element in communication; code system for cable messages; the problem of samples, terms of sale, advantages of trial orders on long-time credits.

Packing; security from damage by sea, climate and land transportation; security from theft; economies of weight and space; shapes, sizes and weights of packages to meet foreign conditions; foreign port and customs regulations.

Invoices, certificates of origin, consular legalization, etc. Marine insurance; shipment of goods to port of departure, and delivery on board the vessel; cartage and switching charges, warehousing, wharfage, lighterage.

The contract. Ships as common carriers. Contracts of affreightment in general; defined and distinguished from charter party. Warrants implied against unseaworthiness or unfitness in general, against deviation or delay; cancellation clause. Bills of lading; making and form in general; through bills of lading; negotiability. Exceptions in general of perils of the seas; limitation of liability by contract or bill of lading; exemption from particular risks.

The voyage; proceeding to the point of lading, loading and stowage, negligence in loading or improper stowage, custody and control of goods, transshipment and forwarding, negligent management of navigation. The Harter act and consideration. Causes of loss or injury. Proceeding on the voyage; ports of refuge; salvage and wreck. General average. Marine insurance.

The delivery. The discharge, warehousing, delivery, consignee; stoppage in transit. Freight; when earned in general; pro rata; rate and amount; deductions and set-off; persons entitled to collect; persons liable; payment or tender; refunding; actions; liens. Demurrage; nature of liability; liability of shipper and consignee; delays in loading and sailing, during voyage, in unloading; lay days; indemnity, rate and amount; liens for demurrage.

Delivery; ship owner's lien for freight, dead freight, or demurrage; remedies of shippers, against ship; against colliding ships; the measure of damages; port regulations; terminals; Panama canal tolls and regulations.

International exchange. Financing exports and negotiating documents as collateral. Financing imports.

Principles of Business Organization and Management

Professor Swanson

Wednesday evenings, 7 to 9, first semester

Efficiency in organization and management is now essential to successful operation in most business enterprises. As a consequence much attention is being given to the study and analysis of types of organization and management for the purpose of arriving at fundamental principles. This course seeks to ascertain these principles and, this done, to discuss them and illustrate their application. The subject is treated under the following heads:

The function of organization and management—taking into consideration the cost of production or cost of service; a uniform product or service of desired quality; the amount of capital invested; the credit available, the specific nature of the business and the need of a short or long time policy.

The standard of efficiency in organization and management. The complex nature of such a standard. Differences in the standard in various types of business.

The objects of a business enterprise. The manner in which the objects of a particular business affect the nature of the organization and management. The limitations of organization.

The evolution of organization and management. The effect of changing conditions of supply and demand of raw material, labor, and product on organization and management.

The location of a business. Relation of the location to efficient management.

The organization of a business from the point of view of ownership. The relative advantages of individual ownership, the partnership, and the corporation with reference to (a) ownership responsibility on part of the management; (b) control of the management by the owners, and (c) centralization of authority.

The organization and management of a business with reference to operation; (a) functional, territorial and unit specialization; (b) coördination of men and departments; (c) the delegation of authority in the establishment of standards, in the handling of daily routine and operation, in maintaining discipline, in emergencies; the relation of responsibility to authority; the manner in which this relation can be sustained; (d) control by means of statistics, graphs and charts, reports, supervision and inspection, line organization; (e) standardization of material, operations, methods, machinery, product; (f) discipline, disciplinary officers, principle of reward and punishment, value

of fines, immediate attention in case of infraction of rules; merit records; (g) business policies.

Special systems of organization and management. Line and staff system; Taylor's system; Emerson's system; the committee system; Hines' unit system; Legislative system.

The selection of employees; centralized vs. decentralized method; value of application forms; references; tests; medical examination.

The training of men; special instruction; rotation in plant; assistantship; committee system; apprenticeship; incentives to efficiency in individuals.

Human interest; immediate returns; security; promotion and co-operation.

Commercial Organization

Professor Swanson

Wednesday evenings, 7 to 9, second semester

This subject embraces a study of distribution, including the merchandising activities of manufacturing, wholesale, and retail establishments. It is treated under the following heads:

(a) The factors in our distributive system including manufacturer; general and specialty wholesaler; jobber and sub-jobber; commission merchant; factory agent; broker; department, specialty, general, syndicate store; general retailer; mail order retailer; retail agent, and salesman.

(b) Sales, advertising and credit organization and management of the manufacturer in the following schemes of distribution:

Manufacturer selling direct to wholesaler.

Manufacturer selling to wholesaler but advertising to consumer.

Manufacturer selling to retailer with or without co-operation of wholesaler, and advertising to consumer.

Manufacturer selling to consumer indirectly through special or general wholesale and retail agents.

Manufacturer selling directly to consumer through manufacturer's stores.

Manufacturer selling directly to consumer through mail order or salesmen.

The subjects which are studied in connection with the various types include the following:

Advantages and disadvantages of the several types, with regard to creating and maintaining demand, market control, selling and advertising. Importance of the different types in principal industries.

Marketing a new product.

Entering new territory.

Manner in which one factor secures the co-operation of other factors by means of sales and advertising aids and policies.

Sales planning—defining sales districts; routing salesmen; fixing sales quota; preparing sales demonstrations; determining selling efficiency.

Selection and training of salesmen.

Supervision and control of salesmen—reports, maps, statistics, correspondence.

Incentives to salesmen—methods of payment, bonus, competitive features, conventions, sales literature.

Relation of advertising to selling.

Choice of advertising media—class of subscribers, rates, territory, forced subscription, editorial policy, records in the buying of space, inquiry records.

Experimenting with media and copy.

Relation of credit department to sales department.

Functions of credit and collection departments.

Sources of credit information—Financial statement; correspondence; banks; salesmen's reports; agency reports; co-operative agency reports.

Analysis of credit information.

Credit insurance.

Collection policies and methods.

(c) Sales, advertising and credit organization and management of general, specialty, and mail order wholesale houses; department store, syndicate store, general store and specialty store; specialty, general and co-operative mail order retailing establishments.

Retail Merchandising

Professor Swanson
assisted by special lecturers

The special feature of this course is a series of lectures by experienced business men possessing intimate practical knowledge of the several topics under discussion.

Preliminary. The purpose of retailing; retailing and retail mail order houses; currents of trade.

Opening a new store; the installation of departments; selection of merchandise; location; capital.

The personnel; emphasizing the human element.

System; emphasizing the mechanical elements.

The physical store; fixtures; arrangement.

Buying; quantity versus variety; overstocks; stickers; relation to jobber; seasonable goods; style changes; credit terms; cash; re-orders; countermanded orders; buying in advance.

Credit; application for credit; how and when to apply for credit; credit purchases from more than one house; basis for requests for credit.

Selling; the customer; training salesmen; efficiency; sales policies; credit versus cash.

Advertising; merits of the various kinds; costs, jobber co-operation.

Records; keeping fingers on the pulse of the business.

Freight and shipping.

Expense; figuring profits; distribution of the overhead; rent, heat, light, insurance, delivery, superintendence, wages.

The syndicate, and 5 and 10 cent stores and their contribution to retailing.

Not given in 1914-1915.

Economics

Principles of Economics

Section Wednesday evenings, 7 to 9

Professor Lagerquist

Section Thursday evenings, 7 to 9

Professor Deibler

The aim of this subject is to give students an appreciation of the principles underlying business activities of the community and to enable them to apply sound economic reasoning to the practical affairs of business life. The subject matter is as follows:

(a) *Consumption.* A preliminary survey and a consideration of the fundamental laws of wealth, utility, value, price, etc.

(b) *The Distribution of Wealth.* A study of the theory of wages, rent, interest and profits, together with such allied subjects as population.

(c) *Organization of Production.* This includes the part that both labor and capital play under different conditions in production. Considerable attention is given to large-scale production and its influences, also to the characteristics and influence of corporate organization, on production.

(d) *Value and Exchange.* An examination of value, exchange and price; establishment of market value; effect on values of speculation, constant cost, varying cost, joint cost, increasing cost and monopoly control.

(e) *Money and Banking.* An explanation of the medium and mechanism by which exchange is carried on; the relation of the quantity of money to prices; cost of money and its value; the rise of prices and high cost of living; bimetallism and paper money. Banking includes an explanation of banking operations and the chief types of banking systems, together with financial panics, crises and industrial depressions.

(f) *International Trade.* A survey of the principles of foreign trade, international exchange and an exposition of protection and free trade.

(g) *Problems of Labor.* Trade unions; arbitration; workmen's compensation; industrial insurance; minimum wage; co-operation; profit-sharing; general labor legislation.

(h) *Problems of Economic Organization.* Particular attention is given here to railway problems, public ownership and control, combinations and trusts, and socialism as affecting our economic organization.

(i) *Taxation.* The general principles of taxation are taken up with special reference to the income tax, inheritance tax, land tax, general property tax, and taxes on commodities.

Industry

Factory Management

Mr. Dutton

Friday evenings, 7 to 9

Factory Management is intended for persons who are interested in the application of the principles of organization and management to manufacturing. The topics covered are:

Factors affecting location—Sources of raw material; transportation of raw material; skilled and unskilled labor supply; proximity and access to market; power.

Plant construction and equipment—Continuous industries; assembling industries; arrangement of buildings; arrangement of machinery; light; fire prevention; internal transportation.

Stores and stockkeeping, and receiving—Physical handling and storing of raw, finished and semi-finished material. The recording

of receipts and material in stock; requisitions; perpetual inventories; tool-room practice.

Purchasing—Standardization of materials purchased; centralization of purchases; unit purchasing; department records; contracts for spread delivery of materials; requisitions; investment, market, storage, service, and price considerations in quantity purchasing.

Order department—Methods and records.

Planning and production department—Routing each order by determining in advance the succession of operations to be performed; dispatching all orders from a central department so as to enable the management to order the work from day to day as circumstances or policy may demand; scheduling all the work in process so that definite shipping dates may be set and maintained; establishing standards with regard to handling material; operating machines; performing specific tasks.

Traffic department—Rates, class and commodity, carload and less than carload lots, raw material, finished products and rehandled goods; classification; rules; routing; billing; tracing claims.

Shipping and receiving departments—Location; physical equipment; proper packing and marking of freight.

Managerial control by means of statistics, reports and line organization.

Employees—Selection; training; records of time and work; payment; promotion; efficiency; personal factors; discipline.

General organization—Different factory systems, including line and staff, functional, and departmental systems.

Industrial Consolidation and Efficiency

Professor Hotchkiss

Wednesday afternoons, 4:30 to 6:30, second semester

The industries from which material will be drawn are iron and steel, oil, farm machinery, tobacco, lumber, cotton. Following are the topics around which the subject will center:

(a) *Development of the Industry.* Nature, extent, and geographical distribution of the resources upon which the industry depends; successive stages in the development of the present plan of organization; essential factors in present organization.

(b) *Plant Efficiency.* The most advantageous size of plant in the different industries and in their different branches; efficient utilization of machinery and of men; size of plant and the law of diminishing returns.

(c) *Corporation Efficiency.* Economies arising from the combination and grouping of plants; horizontal vs. vertical combinations; savings through vertical combination or the integration of an industry; question of what constitutes cost in an integrated industry; utilization of by-products; horizontal combinations; comparison of costs in different plants; distributing and selling advantages such as elimination of cross freights, saving of time in deliveries, reduction of selling and advertising cost.

(d) *Consolidation vs. Large-Scale Production.* The degree of combination necessary to secure selling and distributing advantages; financial advantages of combinations; distinction between the advantages of large-scale production and of largest scale or consolidation.

(e) *Efficiency vs. Market Control.* Difficulty of ascertaining how far profits of combinations come from increased efficiency and how far from monopoly control; meaning of monopoly; methods of exercising monopoly power; fair and unfair competition; difficulty of interpreting cost figures for consolidated concerns; inter-company profits.

(f) *Industries Considered with Respect to the Market for their Products.* Comparison of the market for consumption and production goods; characteristics of the purchasers of the particular products; products of universal consumption vs. products of class consumption; the home market and the foreign market; character of the market as influencing selling policies, and the economies to be gained through combination.

(g) *Possible Disadvantages of Combination.* Danger of cumbersomeness in organization; detachment of the central control from the actual operations; increased expenses of management and supervision; danger of stagnation; inventive activity of combinations compared with other industries.

(h) *Public Relations of Combinations.* Combination efficiency considered from the standpoint of immediate profits; of long-time efficiency in producing and distributing goods, and of the influence upon political and social welfare of the community.

Subject matter is based upon documentary material such as the reports of the corporations concerned and the data obtained from government investigation.

Industrial Relations

Professor Howard

Tuesday evenings, 7 to 9, first semester

An experimental course dealing chiefly with the relations between employer and employe; the economic basis of such relations and the various forms which this relation has assumed. These relations are conceived as being in a state of evolution and particularly unstable at present. There exist many diverse and interesting types, representing the adjustments and devices to meet special situations, some of which types illustrate universal principles. Special attention will be given to the trade agreements existing in the garment industry as illustrating some new phases of trade union development. Specific topics: Trade agreements, arbitration, mediation, welfare work, profit-sharing, etc.

The course is limited to those students who have a special interest in the subject sufficient to secure the approval of the instructor and who have time to make outside preparation and investigation.

Law and Policy of Industrial Combinations

Professor Hotchkiss

Monopoly and restraint of trade under the common law; trust regulation as a problem in administration; state anti-trust laws; the Sherman Anti-trust Law; proposed methods of trust regulation; the work of existing commissions; trust policies in foreign countries; the present basis for development of a trust policy. Given in alternate years with *Industrial Consolidation and Efficiency*. Not given in 1914-1915.

Business Psychology

Professor Scott

Monday evenings, 7 to 9

The aim of this subject is to make a practical study of human nature with the emphasis on the methods of influencing men by means of advertising. The subject is not intended exclusively for advertisers, since influencing men is an important part of all business. Two texts are used and each student is required weekly to make written applications of the principles being studied. Students are advised to enter the class only at the beginning of the first semester but they may enter at the beginning of the second semester.

FIRST SEMESTER

(a) The nature of psychology; methods of studying; advantages of such a study.

(b) A theoretical and practical study of sensation, perception, apperception, illusion, imagination, association of ideas, fusion, memory, and progressive thinking.

SECOND SEMESTER

(a) A theoretical and practical study of attention; appeals to customers' sympathy, instincts and habits; methods the customer uses in "making up his mind."

(b) A study of methods for making arguments and for presenting suggestions; the psychology of the direct command, the direct question and the return coupon.

(c) The psychological strength of each of the media of advertising, i. e., newspapers, magazines, street cars, bill boards, booklets, and novelties.

(d) A study of the methods of advertising some typical class of merchandise, e. g., Foods.

Statistical Methods in Business

Professor Secrét

Friday evenings, 6:30 to 9:30, first semester

The course is designed to prepare business men to use discriminatingly the most approved statistical methods in the analysis of business problems. The uses and abuses of such methods are carefully studied by means of problems drawn from the fields of business and general economics. Both lecture and laboratory methods are followed throughout the course. Students are required, under the direction of the instructor, to apply standard statistical measures to economic and business facts, and to formulate judgments as to the proper application of each to the particular problems at hand.

Some attention is given to the development of the science of statistics, and to the causes for and significance of the recent advance in the appreciation of facts when dealing both with the private and with the public sides of business.

The following paragraphs are suggestive of the nature of the topics to which attention is directed:

(a) *The Problem.* The statistical possibilities of suggested economic and business problems, together with an appraisal of the scope, accuracy, and completeness, of available data; the difficulties of defining units of measurement, and the necessity of eliminating foreign and extraneous matter.

(b) *Getting Material.* The preparation and use of schedules, direct questioning, hearsay evidence, examination of records, comparability and reliability of the facts recorded, the methods of estimates, sampling, averaging, etc.

(c) *Preparation of Material.* The treatment of material collected or arrangement of facts secured so as to present them in the most forceful and discriminating manner for the purposes desired; consideration of tabulation, graphic methods of presentation, uses and abuses of averages, dispersion, correlation, use of index numbers, etc.

(d) *Interpretation of Material and Preparation of Reports.* Practice is given in the work assigned for laboratory purposes and in other problems in passing upon the reliability of data, in criticising the forms of presentation, in testing the accuracy of the conclusions drawn from data, in formulating statistical cautions, in putting into oral and written form conclusions from a given mass of statistical facts properly arranged, in standardizing statistical devices, etc.

Transportation

Movement is life. Transportation is a vital feature of local and national economic and social conditions. Its fundamental importance from these aspects has involved transportation in politics. Chicago is the largest transportation center in the world. A large population depends for subsistence upon railroad employment. Chicago is likewise the commercial and industrial center of the West, and its establishments owe their existence to the facilities afforded by the railroads. A demand exists for competent employees both among the railroads and the other industries. By recognizing transportation as a distinct branch of study the School of Commerce emphasizes the principles which lead to the highest degree of public comfort, convenience and welfare in the transportation service.

Transportation Law

Mr. Kerr

Thursday evenings, 7 to 9, first semester

Instruction in this subject comprises approximately fifteen lectures on specific topics. Each lecture is discussed by the class and final

examinations are based on the entire course. The preliminary arrangement of topics is as follows: American railway net, including beginning, growth and final development of the railroad systems of this country; economic and social functions, including the importance of transportation facilities to modern conditions; physical plant and equipment, including a survey of the relation between rights of way, equipment and terminals and reliable and successful service; economics of railroad operation, including use of traffic statistics; organization of operating personnel, including centralization of authority for efficient operation; liability of common carriers, including responsibility for loss, damage and delay; basis and mechanism of rates and fares, including rate theories, associations and territories, and schedules; accounts and reports, including outline of accounts prescribed by Interstate Commerce Commission; labor and arbitration; regulation, including an analysis of state and federal regulating laws; government ownership, including summaries of arguments in favor of and opposed to the experiment in this country.

Interstate Commerce Law and Procedure

Mr. Kerr

Thursday evenings, 7 to 9, second semester

This subject reviews the development and present status of the interstate commerce law. It consists of approximately fifteen lectures on specific topics, each of which will be discussed by the class. Final examinations are based on the entire course. The preliminary arrangement of topics is as follows: Origin and development of Act to Regulate Commerce, including Cullom, Hepburn and Mann-Elkins laws; excessive rates, including commission and court decisions on the absolute level of rates; rate discriminations, including discriminations between persons, between commodities and between localities; long and short haul clause, including authorizations under 1910 amendment; commodities clause, including court decisions; pooling, including application to railroads of Sherman anti-trust law; valuation, including summary of state valuations and current valuation of federal commission; service, including terminal, tap line and industrial services; jurisdiction over allied services; stock and bond issues, including summaries of laws and recent abuses.

Languages

English I

Professor Smart

Wednesday evenings, 7 to 9

This subject is intended to meet the needs of students who are not fully prepared for the work of English II. It gives a rapid, systematic review of the fundamental elements of the language, and lays the foundation for a more advanced study of the principles of correct oral and written expression. In the first semester, a thorough review of the essential elements of English grammar is given. The work is made as non-technical and practical as possible. The work of the second semester consists of a review of punctuation and an introduction to the simpler principles of sentence structure. For all except those who have had similar training elsewhere the course should precede English II. This subject is not credited toward the diploma in Commerce.

English II

Professor Smart

Tuesday evenings, 7 to 9

This subject is a continuation of English I, but may be taken by anyone who has had at least three years of high school work in English, or the equivalent. All students who have had less than three years high school work in English and wish to register for English II, must qualify by taking an examination given by Professor Smart on Thursday evening, September 24. The first semester and part of the second semester are devoted to the study of advanced sentence structure, paragraphing, and organization of material, supplemented by practice in the writing of themes. The purpose of this work is to train the student in ease, correctness, and effectiveness of expression. Without such preliminary training, satisfactory work in the more technical forms of business writing is impossible; with it, the student can readily adapt himself to the requirements of his particular line of work. In the latter part of the second semester, some of the more technical forms of business correspondence are discussed, and drill in writing them is given.

FIRST SEMESTER

Organization of material; structure of the paragraph; review of punctuation.

Sentence structure: violations of correct form; unity; arrangement and relation of parts.

SECOND SEMESTER

Effectiveness in sentence structure; enlarging one's vocabulary; common mistakes in the use of words.

Business correspondence: freshness and naturalness in style; use of forms; sales letters; follow-up letters; collection letters.

Students may enter both of these classes for the entire year, or, with the approval of the instructor, for either semester. To secure the best results, however, the student should enter at the beginning of the year.

English III—Public Speaking

Mr. Weaver

Wednesday evenings, 7 to 9

The aim of this subject, in the theory and practice of effective public speaking, is to stimulate and develop clear, logical thinking, and a forceful, adequate expression of thought. This work should appeal not only to him whose profession emphasizes the necessity of frequent appearance before public assemblies, but also to the man who wishes to broaden the field of his influence by acquiring power and facility in the expression of his ideas.

FIRST SEMESTER

The work of the first semester is based largely on *Phillip's Effective Speaking*. The class is required not only to learn the rules which govern effective speech, but constant attention is given to practical, original application of the principles as they are taken up one by one. Special emphasis is laid on:

The general ends of speech; the principle of reference to experience; the four forms of support; the importance of statement of aim and central idea; the preparation of a complete outline for the speech; the function of introduction and conclusion in speech making; and the relationship between speaker and audience.

SECOND SEMESTER

The work of this semester consists in the writing and delivery of speeches from models. Various kinds of speeches are studied and the students are asked to prepare and deliver before the class examples

of the different types. An effort is made to give each student as many chances as possible to stand before the class and cultivate confidence and strength in the formulation and presentation of his thoughts and ideas. Constant reference is made to the principles taken up during the first semester. The following kinds of speeches furnish the basis for study:

The Eulogy,
The Commemorative Address,
The Inaugural Address,
The Political Address,
The Forensic Address,
The After-Dinner Speech.

Commercial French

Mr. Vaccariello

Tuesday evenings, 7 to 9

The fact that French is the official language of many European countries and is used in many other parts of the world where our foreign commerce is assuming increasing importance makes a knowledge of French indispensable in many branches of foreign trade. The main feature of the work in French will be a thorough drill in French grammar and composition. The course is intended for those who desire a practical knowledge of modern French for business purposes.

Commercial Spanish

Mr. Vaccariello

The growing importance of our commercial interests in countries where Spanish is spoken, due to our insular possessions and the relations of the United States with the South American Republics, makes a knowledge of Spanish indispensable to many lines of business activity. The work in Spanish will begin with a thorough training in pronunciation and conversation. Appropriate stress will be laid on the technical vocabulary of trade, and on Spanish forms of commercial correspondence. Thorough drill in grammar and in composition will be an important feature of the work. Given in alternate years with *Commercial French*. *Not given in 1914-1915.*

General Information

REQUIREMENTS FOR ADMISSION

Applicants for admission to the evening courses, whether as diploma or special students, must be at least eighteen years of age, and those under twenty-one must have completed a four-year course in an approved high school. Applicants must file with the secretary certificates showing the nature and amount of their preliminary education, and must also submit a properly attested detailed statement setting forth their business experience. This statement must give evidence of sufficient maturity and training to enable the applicant to pursue the work with profit.

REQUIREMENTS FOR THE DIPLOMA IN COMMERCE

Candidates for the diploma must give evidence of satisfactory experience in business for a period of at least one full year. They must have completed twelve subjects, requiring normally four evenings a week for three years, and including a full year course each in Accounting, Business Law, Economics, and Money and Banking. In addition, they are required to take English II unless they give evidence by examination of satisfactory proficiency in English. Of the twelve subjects, at least nine must be other than languages. English I and Bookkeeping are not credited toward a diploma.

For students whose other duties will not permit them to carry four subjects a week, a four-year course of three evenings a week is recommended.

ADVANCED STANDING

A candidate for a diploma, offering advance credit from other institutions, is required to pursue at least four business subjects throughout a full school year under the direction of the faculty of the School of Commerce. No advance credit toward the diploma will be allowed except for subjects which fall clearly in the field of business.

INDIVIDUAL SUBJECTS

Persons who are qualified for admission but are not in a position to undertake a regular course, may register for any particular evening subjects for which they are prepared. In limited numbers such persons may register for day work upon vote of the faculty. Work

completed in individual subjects will be duly credited should the student later wish to qualify for the diploma.

REGISTRATION

Beginning August 1, members of the faculty are in the office of the School to assist students and prospective students in arranging their courses of study. Every applicant for admission is urged to avail himself of this opportunity for a personal interview.

Each student and applicant must fill out a registration blank and file it at the Office. This must be approved by a member of the faculty as to the selection of subjects, and by the secretary as to general requirements. If it is approved, a notice of acceptance is mailed, together with tuition bill (see Instructions for Payment of Tuition, page 47). This notice indicates the date of the first session in each class, and the lecture hall in which the class meets.

OPENING NIGHT

Regular class work begins Wednesday, September 30.

"Opening Night," Friday, September 25, is in the nature of an informal reception, affording prospective members of the School an opportunity to meet students and members of the faculty.

EXAMINATIONS

Examinations are held at the close of each semester, in the studies of that semester, and must be taken by all students who expect to receive credit for their work. Students who are absent from a regular examination may arrange with the instructor for a special examination. For such special examination a fee of one dollar is charged.

GRADES OF SCHOLARSHIP

At the end of each semester the standing of a student in each of his courses is reported by the instructor to the Secretary and is entered of record. Standing is expressed, according to proficiency, in grades A, B, C, D, E, F.

Grade A denotes superior scholarship; grade B, good scholarship; grade C, fair scholarship; grade D, poor scholarship; grade E, a condition which may be removed by a second examination; grade F, a failure removable only by repetition of the subject in the class. Work of grades A, B, and C is counted toward a diploma. Work of grade D may also be counted toward a diploma, but not more

than one-sixth of the work offered to meet the requirements for graduation may be of this grade.

Work reported as of grade E must be made good at a second examination or must be taken again in the classroom if credit is to be obtained, but work of this grade cannot be raised by examination to a grade higher than D. Work of grade D cannot be raised to a higher grade by examination.

Work reported "incomplete" at the end of any semester, and not made good by the beginning of the corresponding semester of the following year, can thereafter be given credit only by repetition in the class.

At the end of the school year, written report of grades received is mailed to the student, and, if he desires, to his employer or other person whom he may designate.

THE JOSEPH SCHAFFNER PRIZE

A prize of one hundred dollars, the gift of Mr. Joseph Schaffner, is awarded annually to that evening student in the School of Commerce who upon graduation has made the best record during a minimum of two years' work. Only those candidates are considered eligible for the prize who have taken in the evening or late afternoon classes in Chicago, three-fourths of the twelve units required for the diploma.

LIBRARY SCHOLARSHIPS

Four Library Scholarships of seventy-five dollars each are open to students in the School. They will be awarded, if possible, to students who have been registered in the School on the basis of their previous work and their ability to undertake the limited amount of work required. Applications must be in before the first of August.

BUREAU OF EMPLOYMENT

The School of Commerce conducts a Bureau of Employment, through which the attention of students is brought to the demands of the business community. All students are requested to register in the bureau at the time they enroll, in order that the School may serve the students and the business community to the best advantage.

The efficacy of efforts in behalf of students will depend to a very large extent upon their co-operation. Information which may come to any student concerning positions to be filled should be brought promptly to the attention of the Bureau, together with such details as may be secured.

Address communications to the secretary of the Bureau of Employment, School of Commerce.

DEGREE OF CERTIFIED PUBLIC ACCOUNTANT

By act of the General Assembly passed May 15, 1903, provision is made for a state examination for the degree of Certified Public Accountant. Copies of the state law and the rules governing the examination, and questions given in previous examinations since 1903, may be secured at the office of the School of Commerce. Attention is called to the requirement of the law that an applicant for the Certified Public Accountant examination must be a graduate of a high school with a four-year course of instruction, or present to the Board of Examiners evidence of an education equivalent thereto.

The administration of the law is placed upon the State University. Information concerning examinations may be secured by addressing Board of Certified Public Accountant Examiners, Urbana, Illinois.

Student Social Organizations

THE COMMERCE CLUB

Since the organization of the School of Commerce in 1908, there has existed the "Student Organization." The Commerce Club of Northwestern University succeeded the "Student Organization" and was incorporated under the laws of the State of Illinois in the fall of 1913. The object of the Commerce Club is "to promote the interests of the students and alumni, and the welfare of the School of Commerce." The Commerce Club is the organization which unites the undergraduates, alumni and special students and makes for a greater School of Commerce. It helps to establish the student's identity with the University. Through the potent influence of the members, holding positions in the various business houses of Chicago, higher standards in business and a scientific attitude toward all business problems are being developed.

The Commerce Club Room, known as the "Commerce Campus," is located on the fourth floor of the Northwestern University Building. It is a spacious room, furnished to make an ideal club room for the students.

THE LYDIANS

The women students of the School of Commerce organized in the spring of 1913 under the name "The Lydians." The purpose

of the society is to bring the women of the School into closer association, to strengthen their identity with the School, and in other ways to promote their mutual interests. The Lydians have a comfortable and attractive club room located across the corridor from the office of the School.

THE SCHOOL OF COMMERCE DEBATING CLUB

The Debating Club was organized by a group of students of the School of Commerce in the fall of 1911. Formal debates are arranged for the weekly meetings held during the school year, and all members are required to participate at frequent intervals. The Club offers an excellent opportunity for those students in the School who wish to train themselves in the art of effective speaking.

TUITION

For full time work, i. e., more than ten hours per week.....	\$110	First semester, \$60.00; second semester, \$50.00
For 5 2-hour subjects...	100	First semester, 55.00; second semester, 45.00
For 4 2-hour subjects...	85	First semester, 45.00; second semester, 40.00
For 3 2-hour subjects...	75	First semester, 40.00; second semester, 35.00
For 2 2-hour subjects...	60	First semester, 32.50; second semester, 27.50
For 1 2-hour subject....	45	First semester, 25.00; second semester, 20.00
Accounting I-C, 4-hour subject,	second semester.....	45.00

FEES

Lecture Note Fees. A fee sufficient to cover the cost of preparing and manifolded notes in certain subjects is entered with the tuition bill at the beginning of each semester. This fee, depending on the subject, varies from \$3.00 to \$5.00 a semester. The subject matter of many of the courses offered in the School of Commerce, notably Accounting, has been prepared in such a way as to take the place of textbooks.

Matriculation and Diploma Fees. A matriculation fee of \$5.00 is charged all students who qualify for the diploma, and is payable at the beginning of their last year. The diploma fee of \$10.00 is payable at the close of the final year, prior to Commencement.

INSTRUCTIONS FOR PAYMENT OF TUITION

A bill, covering tuition for the semester and lecture note fees, is mailed the student upon approval of his registration. This bill may be paid as follows:

(1) At the office of the Cashier, in the Rotunda of the Northwestern University Building, between 9 and 5 o'clock; Saturdays between 9 and 1.

(2) By check or money order, payable to Northwestern University, and mailed to the office of the School of Commerce or to the Cashier, accompanied by tuition bill.

First semester tuition due September 30, 1914.

Second semester tuition due February 8, 1915.

REFUNDS

NO TUITION IS REFUNDED by Northwestern University except upon certification by physician that serious illness has compelled the student to withdraw permanently from the School. Credit on tuition cannot be extended from one year to the next.

BOOK STORE

For the convenience of its students, the School of Commerce maintains a book store, where the textbooks used in the various classes may be procured if desired. The book store is located in Room 411, directly opposite the entrance to the general office of the School.

HOURS FOR CONSULTATION AND REGISTRATION

The office of the School of Commerce, in Room 412, Northwestern University Building, at the corner of Lake and Dearborn Streets, Chicago, is open from 9 a. m. to 5 p. m.; during the school year, 9 a. m. to 9 p. m., daily; Saturdays from 9 to 1. Between September 1 and November 1 the office will be open on Saturday from 9 to 5. Consultation at other hours will be arranged upon request.

Address all correspondence to the Secretary, NORTHWESTERN UNIVERSITY SCHOOL OF COMMERCE, Lake and Dearborn Streets, Chicago.

LIST OF STUDENTS WHO HAVE RECEIVED THE DIPLOMA IN
COMMERCE

1911

Carl August Gaensslen, M.E.	Frederick Parks Mozingo
Joseph Henry Gilby, C.P.A.	Walter Andrew Mueller
Joseph Sebastian Kelly	Keichiro Nakagami
David Himmelblau, B.A., C.P.A.	

1912

Lewis Eichorn Ashman	George Joseph Schkurovich
Nels Frye	Orlo Dean Smith
William Herbert Maddock	Jacob Martin Ullman
Edward John McBrady	Fred Norman Vanderwalker
Walter Holton Price	

1913

Gerald Vernon Cleary	Charles Francis McConnell, B.A.
Samuel Lazarus Gunther	Alexander Wright Taylor Ogilvie
Arthur Lovett Jeffery	Ernest Orville Palmer
Maynard Loven Kreidler	Frank Gottfried Zillmer
Theodore Henry Krumwiede	

1914

Christian John Bannick	John Roscoe Stewart
Albert Wenzel Bauer	Flora Alfaretta Voorhees
Harry Alvin Duncan	David Henry Weitzenfeld
Charles Oscar Salle	Walter Louis Woldhausen
Edward James Solon	

BACHELOR IN BUSINESS ADMINISTRATION

David Himmelblau, B.A., C.P.A.

THE JOSEPH SCHAFFNER PRIZE

John Roscoe Stewart

The following students, registered for three or more courses,
received honorable mention:

Robert John Aitchison	George D. E. McAninch
Samuel Barnard Arvey	Melvin Hugh Rose
John Cabot Blood	Charles Truax, Jr.
Otto Edward Fried	

Day Courses and Degree

By vote of the Board of Trustees, January 9, 1912, a course of study leading to the degree of Bachelor in Business Administration was approved. The plan outlined contemplates a combined five-year course with three years' work in Business Administration following the first two years of regular college work. This course involves a thorough inquiry into the principles of business organization and management, and the application of principles to specific problems. It comprises a careful and comprehensive survey of the different branches of business, followed by a more intensive study in some particular line.

ADMISSION

As a minimum requirement for admission to the degree course, applicants must present evidence of having completed work equivalent to entrance requirements and two full years of study in a university, college, professional or scientific school of approved standing. They will be expected to have completed, during the two college years, a full year course covering the Principles of Economics. Persons will not be permitted to begin the work of the degree course unless their college record gives evidence of capacity to undertake serious professional study.

REQUIREMENTS FOR THE DEGREE BACHELOR IN BUSINESS ADMINISTRATION

Persons of good ability who enter the School with the minimum requirement will usually be able to complete the work for the degree in three years. Persons who enter with three years of college work may, by meeting special requirements, be able to complete the work in two years. Candidates offering advance credit from other institutions are required to pursue at least one full year's work under the direction of the faculty of the School of Commerce.

The degree will not be awarded merely as result of pursuing a specified number of courses. Students will be expected to meet the requirements imposed with the same professional spirit and with a measure of precision demanded in well-regulated business houses. As the course progresses they should acquire ability to analyze business situations and to apply fundamental principles to the solution of practical business problems. If after a reasonable time a student's

work does not give promise of effectiveness in the business field, he will be discouraged from continuing the course.

Formal application for the B.B.A. degree must be made before November 1 of the academic year in which the degree is granted. Every candidate for the degree will be required, during his last year, to undertake a piece of constructive investigation relating to the particular business which he intends to enter. The subject of this investigation must be filed with the secretary of the School of Commerce not later than December 1, and a thesis containing the results must be presented not later than May 15.

RELATION OF DEGREE STUDENTS TO EVENING COURSES IN THE SCHOOL OF COMMERCE

The major portion of the formal class work required for the degree Bachelor in Business Administration will be offered on the college campus in Evanston. Students, however, will usually pursue at least one subject in the evening courses offered in Chicago. The day and evening work will be so arranged as not to encumber the schedule of students, and it is believed that a moderate amount of participation in the same work by persons with business experience on the one hand and persons whose training has been primarily academic on the other, will be mutually beneficial.

In exceptional cases, mature students occupying responsible positions who can satisfy the requirement concerning preliminary education may be able to secure the business courses required for the degree exclusively by evening work. The minimum time in such cases will be five years.

COMBINED LIBERAL ARTS AND BUSINESS ADMINISTRATION COURSE

Persons who are about to enter college with the thought of following their college work with a course in business administration will find the curriculum and the requirements for a degree in the College of Liberal Arts of Northwestern University well adapted to their needs. Such persons will be expected to complete the required subjects of the college course during their Freshman and Sophomore years.

Students whose record in the first two years of college work shows them qualified to undertake the Business Administration course, may register for that course at the beginning of the third college year. Students so registered, however, will continue with their business work on the College Campus. In general, they will be able

to secure both a college degree and the degree in Business Administration by a combined course covering five years of study.

COMBINED FIVE-YEAR COURSE LEADING TO THE BACHELOR OF
SCIENCE DEGREE AT THE END OF FOUR YEARS, AND TO THE
BACHELOR IN BUSINESS ADMINISTRATION DEGREE
AT THE END OF FIVE YEARS

Students who meet the requirements for entrance to the College of Liberal Arts of Northwestern University may satisfy the requirements for the degree Bachelor of Science by pursuing the following courses listed for the first four years of work:

Freshman Year

	Hours
Economic History (<i>Economics AA</i>).....	3
Mathematics A ₁ or A ₂	3
English A ₁ or A ₂	3
Foreign Language (<i>French A</i>).....	3
Science	4
	—
Total	16

Sophomore Year

	Hours
Economics A	3
General and Business Psychology.....	3
English B ₁	2
Foreign Language (<i>German A</i>).....	3
Science	4
	—
Total	15
Bookkeeping—2nd semester (no credit).....	2

Junior Year

	Hours
Money and Banking (<i>Economics B₁</i> and <i>C₁</i>).....	3
Corporation Finance (<i>Economics B₃</i>), 1st sem. }	3
Investments (<i>Economics C₁₀</i>), 2nd sem. }	
Accounting, 1st sem. }	4
Statistics (<i>Economics C₁₅</i>), 2nd sem. }	
*Transportation (<i>Economics C₁₁</i>), 1st sem. }	3
Trade Unionism (<i>Economics C₃</i>), 2nd sem. }	
American and European Governments (<i>History H</i>).....	3
	—
Total	16

*Not given in 1914-15.

<i>Senior Year</i>		Hours
Business Organization (<i>Economics C₁₀</i>), 1st sem.	}	2
Industrial Combinations (<i>Economics C₁₂</i> or <i>C₁₃</i>), 2nd sem.		
Business Law I and II, 1st sem.	}	4
Commercial Organization, or		
**Factory Management, 2nd sem.		
Municipal Government (<i>History H₁</i>)		3
Seminar and Advanced Courses in Special Field		6-8
Total		15-17

Note: The College of Liberal Arts requires for the Bachelor of Science degree, a prescribed amount of work in a major and in two minor subjects. The courses in Government above scheduled constitute a minor. Students may, however, take minor work in Mathematics or in Psychology if they are preparing for a business career for which those subjects furnish a more necessary preparation. Other minors may be accepted with faculty consent.

FIFTH YEAR LEADING TO THE DEGREE BACHELOR IN BUSINESS ADMINISTRATION

The work of the Business Administration course proper is expected to cover a period of three years. In order to qualify for the degree Bachelor in Business Administration at the end of the third year (the fifth year of the combined course), it will be necessary for a student to secure a position and to be employed in the line of business for which he is preparing, during the summer intervening between the last two years. Except for required subjects in the combined course, the arrangement of courses in the last two years is flexible and will be adjusted with each student in such a way as to meet his particular need. In all cases, however, emphasis in the last year will be laid primarily on individual work and independent investigation in some special field of business research.

SUGGESTED SCHEDULES FOR STUDENTS PREPARING FOR PARTICULAR BUSINESS CAREERS

COMMERCE AND MERCHANDISING

<i>Fourth Year</i>		Hours
Business Organization, 1st sem.	}	2
Industrial Combinations, 2nd sem.		
Business Law, 1st sem.	}	4
Commercial Organization, 2nd sem.		
Municipal Government		3
Resources and Trade		2
Seminar and Thesis		4
Total		15

**Not given in Evanston until 1915-16. Given in Chicago as a year course, 2 hours.

Fifth Year

Seminar in Distribution.....	4
Problems and Field Work in Commercial Organization....	4
Business Law	2
Factory Management	2
Public Finance and Taxation.....	3
Total	15

FACTORY MANAGEMENT

Fourth Year

	Hours
Business Organization, 1st sem. }	2
Industrial Combinations, 2nd sem. }	
Labor Problems	3
Municipal Government	3
Cost Accounting, 1st sem. }	4
Factory Management, 2nd sem. }	
Business Law, 1st sem. }	4
Commercial Organization, 2nd sem. }	
Total	16

Fifth Year

Seminar in Production.....	4
Problems and Field Work in Factory Management.....	4
Engineering	4
Public Finance and Taxation.....	3
Total	15

BANKING AND FINANCE

Fourth Year

	Hours
Business Organization, 1st sem. }	2
Industrial Combinations, 2nd sem. }	
Business Law, 1st sem. }	4
Commercial Organization, 2nd sem. }	
Municipal Government	3
Advanced Banking	2
Seminar	4
Total	15

Fifth Year

Seminar in Finance.....	4
Business Law	2
Factory Management	2
Resources and Trade and Foreign Trade.....	4
Public Finance and Taxation.....	3
Total	15

ACCOUNTING

Fourth Year

	Hours
Business Organization, 1st sem. }	2
Industrial Combinations, 2nd sem. }	
Advanced Accounting	2
Cost Accounting, 1st sem. }	4
Statistics, 2nd sem. }	
Business Law, 1st sem. }	4
Factory Management, 2nd sem. }	
Municipal Government	3
Total	15

Fifth Year

Seminar in Accounting.....	4
Accounting Practice	4
Advanced Economics, 1st sem. }	2
Commercial Organization, 2nd sem. }	
Public Service Accounting.....	2
Public Finance and Taxation.....	3
Total	15

SECRETARYSHIP OF CHAMBERS OF COMMERCE

Fourth Year

	Hours
Business Organization, 1st sem. }	2
Industrial Combinations, 2nd sem. }	
Business Law, 1st sem. }	4
Commercial Organization, 2nd sem. }	
Municipal Government	3
Industrial and Social Problems.....	2
Resources and Trade.....	2
Seminar	3
Total	16

Fifth Year

Seminar and Problems in City Development.....	4
Organization and Work of Chambers of Commerce, 1st sem. }	2
Rate-making, 2nd sem. }	
Problems in Domestic Trade.....	3
Business Law	2
Factory Management	2
Public Finance and Taxation.....	3
Total	16

FOREIGN TRADE

Fourth Year

	Hours
Business Organization, 1st sem. }	2
Industrial Combinations, 2nd sem. }	
Business Law, 1st sem. }	4
Commercial Organization, 2nd sem. }	
Resources and Trade.....	2
*History	3
Seminar	4
Total	15

Fifth Year

Seminar	4
Business Law III and IV.....	2
Advanced Banking, 1st sem. }	2
Business Law V, 2nd sem. }	
*History	2
Foreign Trade	2
International Law, 1st sem.....	5
Factory Management, 2nd sem.....	4
Total	17 and 16

Adjustment of courses, intended to meet the particular needs of students preparing for Transportation, Insurance, and other careers, will appear in a later bulletin.

*The courses in History so far as possible should be related to the countries in which the student expects to be employed. Wherever possible, students preparing for foreign trade will find it profitable to devote an additional year to their preparation in order to give more time for research and for more mature study of the resources, institutions, and customs of the countries to which they are going.

DESCRIPTION OF COURSES

Given on the College Campus in Evanston, unless otherwise indicated

Business

ACCOUNTING

First Principles of Accounting—First semester. For description see page 12. Tu., Fri., 3 to 5. Mr. Grossman.

**Accounting, Advanced Courses*. For description and hours see pages 15, 16, 17, 18 and 19.

BANKING AND FINANCE

See Economics B1, B3, C1, C10.

BUSINESS LAW

Business Law I and II—First semester. For description see page 23. Mon., Wed., 3 to 5. Professor Bays.

**Business Law, Other Courses*. For description and hours see pages 24 and 25.

BUSINESS PSYCHOLOGY

See Psychology, page 65.

COMMERCE

Business Organization (Economics C16)—First semester. For description see page 29. Tu., Th., 2. Professor Swanson.

Commercial Organization—Second semester. For description see page 30. Tu., Thu., 3 to 5. Professor Swanson.

Activity and Management of Commercial Associations—This course involves a study of the function of associations of commerce; their organization—executive officers, departments, committees, and management problems involved in securing active co-operation of members; association finance—sources of revenue, objects of expenditure; community publicity, trade extension and supervision, promotion of international trade; railway and shipping problems, local

*Given in the Northwestern University Building, Chicago.

transportation; service of associations of commerce to business men, relation to other organizations; associations of commerce as a civic force, better living conditions, city beautification; legislative activity. Each student will be required to make an individual study of some problem of association activity or management. Through co-operation with the Chicago Association of Commerce students will be given an opportunity to observe the operation of an association at close range. Professor Hotchkiss, and lecturers from the Chicago Association of Commerce. *Not given until 1915.*

**Foreign Trade*—Second semester. For description and hours see page 27. Mr. Stitt, and special lecturers.

**Resources and Trade*—First semester. For description and hours see pages 25 and 26. Professor Tower.

**South American Trade*—First semester. For description and hours see page 27. Professor Tower.

INDUSTRY

**Factory Management*—For description and hours see page 33. Mr. Dutton.

Engineering—The courses in the College of Engineering will be open to students in the course in Business Administration in so far as students are able to meet the prerequisites. For further statement concerning individual courses, see University Catalog, pages 270 to 272. The particular courses will be chosen under the supervision of the faculty adviser.

Industrial Organization, other courses, see Economics B2, B5, C3, C4, C12, C13.

TRANSPORTATION

**Transportation Law*—First semester. For description and hours see page 38. Mr. Kerr.

**Interstate Commerce Law and Procedure*—Second semester. For description and hours see page 39. Mr. Kerr.

ECONOMICS

The following courses are offered in the Department of Economics, in the College of Liberal Arts:

*Given in the Northwestern University Building, Chicago.

AA. *Economic History*—First semester, English; second semester, United States. Open to all students. Tu., Th., Sat., 9. Professor Swanson.

A. *Elements of Economics*—Fundamental principles and application of principles to practical problems. Not open to Freshmen. In three sections, Mon., Wed., Fri., 8, 9, 10. Professors Deibler, Lagerquist, and Secrist.

B1. *Money and Banking*—The principles of money and the instruments of credit; banks and their function; note issue, deposit currency, loans, reserves, and banking principles. Open to students who have completed Economics A. First semester. Tu., Th., Sat., 9. Professor Howard.

B2. *Labor Problems*—First semester. Development of a wage-earning class, with special emphasis on the economic causes. Problems of woman and child labor, labor organization and labor legislation. Open to students who have completed Course A. Mon., Wed., Fri., 8. Professor Deibler.

B3. *Corporation Finance*—First semester. For description see page 21. Open to students who have completed Course A. Mon., Wed., Fri., 9. Professor Lagerquist.

B4. *Social Economics*—First semester. A study of the economy of social control and of the forces and institutions through which social order is maintained. Open to students who have completed Course A. Tu., Th., 2. Professor Hotchkiss.

B5. *Present Day Industrial and Social Problems*—A study of industrial development since the industrial revolution, and of the social problems to which industrial changes give rise. Emphasis will be given to the problems arising out of the factory system, especially those characteristic of congested industrial centers. Open to Juniors and Seniors who have completed Course A or a course in History or Philosophy. Tu., Th., 3. Professor Hotchkiss.

C1. *Problems of Practical Banking*—The organization and business of a bank; the trust department; the credit department; the officials and their responsibilities. Clearing houses; domestic and international exchange; relation of the banks to commercial crises and to the United States Treasury; banking systems and banking legislation. Open to students who have completed Economics B1. Second semester. Tu., Th., Sat., 9. Professor Howard.

C3. *Trade Unionism*—Second semester. History of trade unionism, its structure, methods and policies. Collective bargaining;

the trade agreement; strikes, arbitration, the injunction, and the legal responsibility of the union. Alternates with Course C4. Mon., Wed., Fri., 8. Professor Deibler.

C4. *Labor Legislation*—Modern factory and labor legislation with particular emphasis on the problems of administration. A study of the labor laws of various states and countries. Alternates with Course C3. Mon., Wed., Fri., 8. Professor Deibler.

C5. *Public Finance*—First semester. Public finance in relation to the theories of the state; the direction and classification of expenditures, city, state, and national; budget-making; sources of revenue; assessment and collection of taxes; principles of taxation. Mon., Wed., Fri., 10. Professor Secrist.

C6. *State and Local Taxation*—Second semester. Alternates with Course C7. Mon., Wed., Fri., 10. Professor Secrist.

C7. *The Principles of Taxation*—Second semester. Alternates with Course C6. Mon., Wed., Fri., 10. Professor Secrist.

C9. *Advanced Economics*—First semester. A more mature study than is possible in the introductory course, of the works of prominent economists and of the development of accepted principles in economic theory. Not given in 1914-1915.

C10. *Investments*—Second semester. For description see page 22. Open to students who have completed Course B3. Mon., Wed., Fri., 9. Professor Lagerquist.

C12. *Industrial Consolidation and Efficiency*—Second semester. For description see page 34. Open to students who have completed Course B3. Alternates with Course C13. Tu., Th., 2. Professor Hotchkiss.

C13. *Industrial Combinations, Law and Policy*—Second semester. For description see page 36. Open to students who have completed Course B3. Alternates with Course C12. Tu., Th., 2. Professor Hotchkiss.

C14. *Special Problems in Social Organization*—Second semester. Individual conferences and reports upon special phases of topics covered by Course B5. Open to students who have completed Course B4; should be taken in conjunction with Course B5. Two hours. Hours to be arranged. Professor Hotchkiss.

C15. *Statistical Methods in Business*—Second semester. For description see page 37. Open to students who have completed Course B3. Mon., Wed., 3 to 5. Professor Secrist.

SEMINAR AND RESEARCH COURSES

Economic Seminar (Economics D)—This course involves an original investigation of some specific topic extending over a complete school year. The topic assigned to each student as far as possible will deal with some phase of a fundamental economic problem related to the business field which the student intends to enter. The purpose of the course, however, is disciplinary rather than informational. The students will meet together under the leader of the seminar for the discussion of general questions involving the technique of investigation, such as the use of original materials, taking of notes, marshalling of facts, but each student will also do his individual work under the direction of a member or members of the faculty to whose specialty the topic is most closely related. The course is intended to give the students training in the use of original data and in drawing correct and accurate conclusions based on all of the facts in a limited field of inquiry. Credit 3-6 hours. The normal registration of fourth year students in Business Administration will be four hours.

Advanced Seminars in Special Fields (Commercial Organization, Factory Management, Banking and Finance, Accounting, etc.)—The organization of these courses is similar to that of Economics D just described, except that the work of each student will be entirely individual and under the direct supervision of that member of the faculty in whose field the subject lies. The purpose of the courses will be to go farther than is possible in the seminar course above described, into the investigation of some fundamental problem, particularly from the standpoint of business organization in the special field. Students will normally precede these courses with Economics D.

Problems and Field Work—As in the case of seminars, the work of each student in these courses will be individual. They are intended to give an opportunity for students in their fifth year to come in contact with some of the actual problems of organization and management as found in an individual establishment or group of establishments. In some cases, the work of the course will be based upon the experience obtained by actual employment during the preceding summer. In other cases, the results of summer work will be combined with work in the nature of apprenticeship carried on by the student contemporaneously with the fifth year of the Business Administration course.

Other College Subjects

The courses described below are selected from among those offered by the several departments indicated as the ones likely to be of most value to students preparing for business. Those which appear in the schedule of the combined five-year course on page 52 are required for the Bachelor of Science degree.

English

Course A1 or Course A2 is required of all college students during their first year of residence, and must precede all other courses in the department. Course B1 is required of all students in their second year.

A1. *Composition and Rhetoric; Brief Survey of English Literature*—Required of all students in their first year, except those who take Course A2. First semester, Composition. Second semester, Literature. Three hours. Fifteen sections. Professor Bryan, Professor Martin, Dr. Crane, Messrs. Denton, Thaler, Hodges, White, and McKinney.

A2. *Composition and Rhetoric; Brief Survey of English Literature*—Required of students whose preparation is found to be insufficient for Course A1. The work of the first semester is continued two hours a week in the second semester, and attendance is required until the student's work is brought consistently up to a satisfactory standard. Three hours. Two sections. Mr. Denton and Mr. McKinney.

B1. *Types of English Literature; Composition*—Required of Sophomores. Two hours. Ten sections. Professor Bryan, Professor Martin, Dr. Crane, Messrs. Thaler, Hodges, White and McKinney.

C5. *Advanced Composition*—Practice in writing, with brief studies of various types, such as the editorial and other journalistic forms, the essay, and the short narrative sketch. Open, with the consent of the instructor, to students who have completed the required English of the Freshman and Sophomore years. Tu., Th., 9. Mr. Denton.

Foreign Language

FRENCH

AA. *Elementary French*—Fraser and Squair's Grammar, Part I. Aldrich and Foster's Reader. Merimée's Colomba. Labiche and Martin's Voyage de M. Perrichon. Credit will not be given unless the full course is completed. Five hours. Seven sections. Messrs. Stone, Huth, Brown, and Leavitt.

AB. *Intermediate French*—Open to students who have presented one unit of French for admission. Mon., Wed., Fri., 9. Professor de Salvio.

A. *Modern French*—Fraser and Squair's Grammar, Part II. Composition, conversation, and dictation. Reading: Schintz's Selections from Maupassant; Daudet's Tartarin de Tarascon; Augier's Le Gendre de M. Poirier; Pailleron's Le Monde où l'on s'ennuie; Hugo's Quatre-Vingt Treize and Hernani; Balzac's Eugénie Grandet; Canfield's French Lyrics. Open to students who have completed Course AA or its equivalent. Three hours. Five sections. Messrs. Stone, Huth, Brown, and Leavitt.

GERMAN

AA. *Elementary German*—Pronunciation, grammar, selections in prose and verse, German composition. Credit will not be given unless the full course is completed. Five hours. Four sections. Professor Edward, Professor Elmquist, Dr. Bernstorff, and Mr. Huth.

AB. *Supplementary German*—Reading of simple literature, translation into German, grammatical drill. Open to students who present one unit of German in their four units of foreign languages for admission. Mon., Wed., Fri., 10, 2. Mr. Steinke.

A. *Intermediate German*—Modern prose writers, classic drama and lyrics. Open to students who have completed Course AA, or AB, or who presented two units of German for admission. Three hours. Eight sections. Professor Curme, Professor Edward, Professor Elmquist, Dr. Bernstorff, Mr. Steinke, and Mr. Huth.

SPANISH

A. *Elementary Course*—Hills and Ford's Grammar; Composition; Bransby's Spanish Reader; Taboada's Cuentos Alegres; Galdos' Doña Perfecta; Tamayo y Baus' El Positivo. Credit will not be given unless the full course is completed. Mon., Wed., Fri., 8. Professor de Salvio.

History

BC. *American History*—The History of the United States from the Revolution. The formation of the Union, the rise and growth of parties, the influence of westward expansion and of slavery on the political, social, and industrial life. Open to students who have completed one full year course in the department, or an equivalent. Mon., Wed., Fri., 11. Professor James.

H. *Elements of Politics*—First semester—American Politics; organization and the development of federal, state, and local governments, and political parties in the United States. Second semester—European Governments; comparative analysis of the governments and constitutional law of Germany, France, Austria-Hungary, Italy, Spain, Switzerland, and Great Britain. Open to all students. Mon., Wed., Fri., 10. Dr. Wallace.

H1. *Municipal Government; Political Parties*—First semester—Historical, analytical, and comparative study of city governments in Europe and the United States. Second semester—Rise and growth of political parties in the United States, the theory and practice of party government, comparison with party systems of Europe, evils of party politics, reform and non-partisan movements, and attempts at legal control of parties through ballot and election laws and direct primaries. The second semester may be taken without the first. Open to students who have completed Course H or any full year course in History or Economics. Mon., Wed., Fri., 8. Dr. Wallace.

Mathematics

The completion of one of the Courses A1, A2 or A3, is required of all college students during their first year of residence.

A1. *Plane Trigonometry; Analytical Geometry*—First semester—Plane Trigonometry. Second semester—Plane Analytical Geometry. Three hours. Ten sections. Professors Curtiss, Wilson, Moulton; Messrs. Dines, Batchelder, Stetson, and Kerr.

A2. *Algebra; Plane Trigonometry*—First semester—Algebra. Second semester—Plane Trigonometry. Three hours. Five sections. Professor Wilson; Messrs. Dines, Batchelder, and Stetson.

A3. *Trigonometry, Algebra, and Analytical Geometry*—More extended than Course A1. Open to students who have presented one and a half units of Algebra for admission. Mon., Tu., Wed., Th., Fri., 8. Professor Moulton.

A4. *Algebra*—More advanced than the first semester of Course A2. May be taken concurrently with Course A1, or may be substituted for the second half of that course. Open to students who have presented one and a half units of Algebra for admission or who have completed the first half of Course A2. A half year course given each semester. Mon., Wed., Fri., 10. Mr. Dines and Mr. Batchelder.

B1. *Differential and Integral Calculus*—A first course in the Calculus, including its simpler applications. Open to students who have completed Course A3 or Courses A1 and A4, or an equivalent. Mon., Wed., Fri., 8, 9. Professor Curtiss and Professor Wilson.

B2. *Plane Analytical Geometry and Calculus*—First semester—An elementary treatment of the straight line and conic sections, equivalent to the second half of Course A1. Second semester—An introduction to the Calculus, equivalent to the first half of Course B1. Open to students who have completed Course A2, or its equivalent, and in the second semester to those who have completed Courses A1 and A4. First semester, Mon., Wed., Fri., 8, 9; second semester, Mon., Wed., Fri., 9. Mr. Batchelder.

C1. *Advanced Calculus*—Infinite series; Taylor's theorem, partial differentiation; differential geometry; definite integrals over curves, surfaces and volumes; the Eulerian functions; Fourier's series; differential equations. Open to students who have completed Course B1. Mon., Wed., Fri., 11. Professor Moulton.

Psychology

A1. *Elementary General Psychology*—Class room demonstrations and guidance to private observation; demonstration of apparatus and methods of experimental psychology; written exercises and experiments by members of the class; text-book, lectures, and collateral reading. Open to Sophomores, Juniors, and Seniors. First semester, Mon., Wed., Fri., 10, 2; second semester, Mon., Wed., Fri., 11. Professor Scott and Professor Gault.

B1. *Experimental Psychology*—Intended for students of general psychology who desire to become acquainted with laboratory methods. Open to students who are taking or have completed Courses A1 and A2. Two consecutive hours of laboratory work are required for one hour of credit. Wed., Fri., 3 to 5. Professor Gault.

B3. *Applied Psychology; Business*—Psychological principles which have the most direct application to business. Analysis of business practices and an attempt to understand from a psychological standpoint some of the causes of successes and failures in business. Individual students study the actual and also the possible applications in business of such factors as imitation, competition, loyalty, the love of the game, and personal differences. More attention is paid to advertising than to other forms of business. Open to students who have completed Course A1. Second semester. Mon., Wed., Fri., 10. Professor Scott.

C1. *Advanced Experimental Psychology*—A continuation of Course B1, with the introduction of a limited amount of research. Two consecutive hours of laboratory work are required for one hour of credit. Open to students who have completed Course B1. *Credit, two year-hours.* Hours to be arranged. Professor Scott.

Science

CHEMISTRY

A. *General Chemistry, Elementary*—Text and laboratory work. Credit is not given unless the full year course is completed. Open without prerequisite. *Credit, four year-hours.* Section I, Class-work, Tu., Th., 1:30 to 2:30; laboratory, Tu., Th., 2:30 to 5. Section II, Class-work, Mon., Fri., 1:30 to 2:30; laboratory, Mon., Fri., 2:30 to 5; Section III, Class-work, Tu., Th., 9 to 10; laboratory, Tu., Th., 10 to 12:30. Professor Young and Assistants.

AB. *General Chemistry*—To supplement the high school course, making the total equivalent to Chemistry A. Open to students who present one unit of Chemistry for admission. First semester. Course B1 makes a proper continuation for the second semester. *Credit, four semester-hours.* Class-work, Tu., Th., 8; laboratory, Tu., Th., 9 to 11:30. Dr. Shaw and Assistants.

B1. *Qualitative Analysis*—Analysis of simple mixtures, accompanied by lectures and quizzes. A half-year course given each semester. Open to students who have completed Course A or an equivalent. *Credit, four semester-hours.* First semester. Lectures, Mon., Wed., Fri., 11; laboratory, Mon., Wed., Fri., 1:30 to 4:30. Professor Hines and Assistants. Second semester. Lectures, Tu., Th., Sat., 8; laboratory, Tu., Th., Sat., 9 to 11:30. Dr. Shaw and Assistants.

GEOLOGY

A1. *General Geology*—A general introduction to Geology. Open to students who have completed in college or in high school a year-course in Chemistry. Part of the work of this course, as well as of some other courses in the department, consists of excursions taken to study geological phenomena in the field. *Credit, four year-hours.* Mon., Wed., Fri., 10. Laboratory hours, Tu., Th., 9 or 10. Professor Grant.

A2. *Geography and Physiography*—An introductory course in earth science. Students who plan to teach geography in secondary schools should take this course. First semester—The earth as a globe, the atmosphere, the oceans, geography of commerce. Second semester—Physiography of the lands, summary of the geography of the continents. Open to all students. The second semester may be taken without the first. *Credit, four year-hours.* Tu., Wed., Th., 2. Laboratory hours, Mon., or Fri., 2. Mr. Cady.

A3. *Mineralogy*—Crystallography, blowpipe analysis, determinative mineralogy of the rock-forming minerals and the common ores. Open to Sophomores, Juniors, and Seniors who have completed in college or in high school a year-course in Chemistry. *Credit, four year-hours.* Tu., Th., 9. Laboratory hours to be arranged in the forenoons. Mr. Wallis.

B2. *Physiographic and General Geology of the United States*—Open to students who have completed Course A1 or A2. *Credit, three semester-hours.* First semester. Tu., Th., 4. Laboratory hours to be arranged. Mr. Cady.

C1. *Economic Geology*—First semester—Metallic mineral resources, especially of the United States. Second semester—Non-metallic mineral resources, especially of the United States. Open to students who have completed Course A1, and have completed or are taking Course A3 or B2; also to students who have completed Courses A2 and A3. *Credit, three year-hours.* Tu., Th., 2. Laboratory hours to be arranged. Professor Grant.

PHYSICS

A. *General Physics*—First semester—General properties of matter, wave-motion, sound. Second semester—Heat, electricity, magnetism, light. An introductory course requiring no mathematics beyond the requirements for entrance to college, intended to acquaint the student with the elementary facts, the method, and the general

principles of physical science. Text-book: Crew's General Physics. One laboratory exercise each week. Open to all students. *Credit, four year-hours.* Mon., Wed., Fri., 9, 10. Professor Crew and Mr. Schnable.

FEES

For students whose primary registration is in the School of Commerce, the fees charged will be as shown on page 47.

Commerce students taking their work in the College of Liberal Arts will pay the regular college fees as follows:

Regular full tuition and incidentals, each semester, \$55.

In certain courses the student is required to pay additional laboratory fees.

For fuller statement, see University Catalog, pages 166 and following.

CATALOG OF THE UNIVERSITY

A copy of the general catalog of Northwestern University, containing full information concerning entrance requirements, courses of study, registration, fees, residence, and student activities, may be secured by addressing the SECRETARY, NORTHWESTERN UNIVERSITY, NORTHWESTERN UNIVERSITY BUILDING, CHICAGO.

Students Registered in the School of Commerce for the Year 1913-1914

- Adams, A. C., 675 Lincoln Park Blvd.
Ahlberg, T. J., American Steel Foundries
Aitchison, R. J., Standard Oil Co. of Indiana
Albert, L. J., James R. Baker & Co.
Alexander, G. H., 1421 La Salle Ave.
Alexopoulos, C. A., Greek Product Importing Co.
Ament, E. F., 724 Oakdale Ave.
Anderson, A. W., Manufacturer, 1427 Carroll Ave.
Anderson, C. E., Chicago Railways Co.
Anderson, G. H., Stromberg Allen & Co.
Anderson, G. W., Marshall Field & Co.
Anderson, W. E., Stock Yards Savings Bank
Andrich, G. C., West Side Trust & Savings Bank
Anson, E. M., Kewanee, Ill.
Arvey, S. B., Western Electric Co.
Ashman, L. E., Ernst & Ernst
Atkinson, C. W. P., I. C. R. R. Co.
Austin, A. B., W. S. McLean
Bache, R. W., Marshall Field & Co.
Bachman, Harry, The Western Shade Cloth Co.
Backstrom, P. H., City National Bank, Evanston
Baddeley, O. O., Byrne Bros. Dredging & Engineering Co.
Bailey, R. R., Audit Co. of Illinois
Baker, J. F., Goodman Mfg. Co.
Baker, L. T., 105 W. Monroe St.
Balaty, Vincent, Hart, Schaffner & Marx
Balgemann, E. A., John F. Jelke Co.
Balser, Albert, 1717 N. Paulina St.
Barber, H. R., Western Electric Co.
Base, W. W., Marshall Field & Co.
Bauer, A. W., American Correspondence School of Law
Bauer, W. T., General Electric Co.
Baur, Mrs. Bertha D., 72 Cedar St.
Bayfield, A. F., Illinois Central R. R.
Becker, Carl, Chicago City Banking & Trust Co.
Behn, C. J., Armour & Co.
Benell, Nancy C., Sulzberger & Sons Co.
Benner, Bruce, Sears, Roebuck & Co.
Benson, R. B., Pullman Co.
Bent, D. E., Commonwealth Edison Co.
Beresford, C. E. V., Western Electric Co.
Berner, B. J., Brunswick-Balke-Contender Co.
Betty, R. I., Continental Casualty Co.
Bierer, H. L., American Terra Cotta & Ceramic Co.
Bingen, E. J., 40 N. Market St.
Black, F. E., 1958 S. Sawyer Ave.
Blake, J. J., Shearson Hammill Co.
Blanchard, W. S., First National Bank of Chicago
Bliss, J. H., Jr., C. A. & D. R. R. Co., Aurora
Block, E. N., Edgewater Bank
Blomgren, R. A., Foreman Bros. Banking Co.
Blood, J. C., 1236 George St.
Boehm, G. F., Hanson Bellows Co.
Bogert, J. V., 230 Florimond St.
Bond, J. B., 836 Cass St.
Borchers, Alfred, Locomobile Co. of America
Bothwell, C. L., Neptune Distilled Water Co.
Bottorff, J. L., Continental Casualty Co.
Boughton, C. L., Central Trust Co. of Illinois
Boyer, O. F., S. Deschauer Co.
Bradshaw, F. H., C. E. Dellenbarger Co.
Brandt, F. M., Northern Trust Safe Deposit Co.
Brady, J. W., Lyon Metallic Mfg. Co.
Brennan, L. E., Gage Brothers

- Bridgam, Mae E., H. O. Wilbur & Sons
 Briggs, E. F., Aetna State Bank
 Broderick, M. J., C. R. I. & P. Ry. Co.
 Broeckl, E. W., Spring Valley Coal Co.
 Broeckl, H. H., Illinois Life Insurance Co.
 Bross, D. M., Wells Fargo & Co.
 Brown, F. J., Jr., C. & N. W. Ry.
 Brown, I. E., Y. M. C. A. Institute
 Brown, Nathan, The City Tailors
 Brown, P. N., Fred S. James
 Brown, S. I., Metropolitan Business College
 Brubaker, H. C., Goodman Mfg. Co.
 Brune, J. H., 753 W. North Ave.
 Bruns, W. E., Brunswick-Balke-Clender Co.
 Buchanan, E. D., Moser Paper Co.
 Buchholz, F. M., Jr., Wm. Wrigley Jr. Co.
 Buckley, G. J., Commonwealth Edison Co.
 Buckley, T. S., O'Shaughnessy Adv. Co.
 Bugler, L. J., C. M. & St. P. Ry.
 Buhman, Charles, Armour & Co.
 Bulger, J. W., P. C. C. & St. L. Ry.
 Bullock, H. L., Aetna Insurance Co.
 Burbott, E. W., J. F. Wilson
 Burleigh, F. M., Russell Brewster Co.
 Bush, E. J., Tildesley & Co.
 Bushnell, G. S., Hyman & Co.
 Buxton, L. E., John F. Jelke Co.
 Cable, C. J., Northern Trust Co.
 Calkins, W. B., Austin High School
 Campbell, V. C., Rock Island System
 Carlsen, J. E., Clinton, Iowa
 Carlson, Vera, W. H. Miner
 Carroll, D. J., Chicago Tribune
 Carroll, E. J., C. B. & Q. Ry.
 Cella, G. F., United Fig & Date Co.
 Chadwick, H. W., Marshall Field & Co.
 Chamberlin, Richard, City National Bank
 Chandler, Grant, Andersen & DeLany
 Chickering, L. A., Williams & Cunningham
 Civis, J. A., Bradley & Vrooman Co.
 Clark, H. D., Chicago Title & Trust Co.
 Clarke, B., Marwick Mitchell Peat & Co.
 Clarke, R. E., Standard Oil Co.
 Clarke, Rosanna, Chicago Athletic Club
 Clutton, G. K., Royal Insurance Co.
 Cobrin, I., I. Lurya Lumber Co.
 Cohen, M., Harris Bros. Co.
 Cohen, N., Empire Tailoring Co.
 Cohn, Frank, Chicago Telephone Co.
 Coleman, G. E., American Ry. Assn.
 Coleman, R. M., Union Trust Co.
 Coleman, W. F., Pyott Co.
 Commiskey, F. E., Public Service Co. of Illinois
 Conlin, E. B., Mead & Wheeler
 Conner, W. L., Swift & Co.
 Coolidge, W. H., J. W. Butler Paper Co.
 Copeland, W. H., Continental Casualty Co.
 Cordell, A. N., First National Bank
 Costigan, B. M., Borden's Condensed Milk Co.
 Coughlin, J. P., 163 154th St.
 Coupe, George, Felt & Tarrant Mfg. Co.
 Cowan, Percy, Greenebaum Sons Bank & Trust Co.
 Cozad, Anna E., Siegel, Cooper & Co.
 Crilly, S. G., American Steel Foundries
 Cronin, P. J., Pennsylvania Lines
 Croyden, D. S., Hubbard Oven Co.
 Cusic, L. E., C. & W. I. R. R. Co.
 Dahlin, G. E., Clark L. Poole & Co.
 Dahm, L. G., T. Buettner & Co.
 Damuth, F. H., American Compound Door Co.
 Daniel, J. W., U. S. Metal & Mfg. Co.
 Daniels, F. M., Adams Express Co.
 Daniels, Joseph, Sulzburger & Sons Co.
 Dedaker, R. N., Chicago Mill. & Lumber Co.
 Denton, M. Estelle, Harry Mitchell Tailoring Co.
 Devereaux, J. W., H. M. Byllesby Co.

- DeSwarte, R. P., Northwestern University, Dormitory B.
Dietrich, Norman, Alfred L. Baker & Co.
Dillon, J. A., Jr., La Grange, Ill.
Dittman, P. C., Standard Electric Novelty Co.
Dittmar, P. O., State Bank of Evans-ton
Dolan, W. S., Pennsylvania Lines
Dold, H. T., Price Waterhouse & Co.
Doppelt, Frank, Central Freight Assn.
Dorman, C. A., Fidelity Phenix Ins. Co.
Drella, J. L., Elgin, Joliet & Eastern Ry. Co.
Drury, L. E., Marshall Field & Co.
Dublin, A. A., Chicago Railways Equipment Co.
Duckham, James, Illinois Tunnel Co.
Dudgeon, G. L., Western Wheeled Scraper Co.
Dunavan, S. J., Hart, Schaffner & Marx
Duncan, H. A., Keokuk, Iowa
Duty, C. H., I. C. R. R. Co.
Dzuro, John, 916 Wells St.
East, A. H., H. T. Holtz & Co.
Ebbeson, W. E., A. C. McClurg & Co.
Egan, H. H., White & Tabor
Ehmen, E. S., Marshall Field & Co.
Ellis, G. P., Chicago Bridge & Iron Works
Elvedahl, O. M., 840 E. 57th St.
Emery, G. C., Armour & Co.
Enes, I. T., Wm. Wrigley Jr. Co.
Enright, Katherine, 2700 N. Whipple St.
Enslow, C. A., Cameron Schroth Co.
Erickson, A. H. O., Norwegian Lutheran Deaconess Hospital
Erlandson, Fridolph, Garlock Packing Co.
Espey, J. E., 1508 Michigan Ave.
Fadden, L. E., Western Electric Co.
Fargo, G. B., Montgomery Ward & Co.
Farrell, E. H., Kellogg Switchboard & Supply Co.
Farwell, E. C., Western Electric Co.
Fast, R. K., 5708 Rosalie Court
Fenton, D. R., City Hall
Fenton, W. M., John V. Farwell Co.
Fink, J. C., A. T. & S. F. Ry. Co.
Fischer, A. W., The Thread Agency
Fisher, E. M., Fairbanks, Morse & Co.
Foley, T. P., M. D., 32 N. State St.
Forshee, C. A., Western Life Indemnity Co.
Forsyth, D. A., Libby, McNeill & Libby
Fox, J. J., C. M. & St. P. Ry.
Franek, J. D., 4928 S. Honore St.
Freeman, Clarence, Bestwall Mfg. Co.
Frey, F. P., Pyott Co.
Fried, M. E., 1524 First National Bank Bldg.
Fried, O. E., Western Shade Cloth Co.
Fritz, A. R. F., American Steel & Wire Co.
Fulde, R. A., Quaker Oats Company
Gay, M. B., Illinois Leather Co.
Gabel, G. F., Rosenwald & Weil
Gallios, E., 744 S. Halsted St.
Gantzer, C. J., Chicago Metal Covering Co.
Garrett, W. V., 3449 Armour Ave.
Gauthier, H. W., Morris & Co.
Gavin, P. S., Commonwealth Edison Co.
Geigel, R. C., Commonwealth Edison Co.
Gendron, Charles, Wells Fargo & Co.
Geuther, Clara, Hollett, Sauter & Henkel
Ghiloni, A. R., New Kentucky Coal Co.
Gibbons, T. P., Cudahy Packing Co.
Gilbert, R. C., Ederheimer Stein Co.
Ginski, P. F., Federal Sign System
Gipp, A. C., Highland Park, Ill.
Gladden, I. T., "The Continent"
Gleason, J. S., Union Trust Co.
Goldenson, S. J., Chicago Carton Co.
Goldstein, Edward, Chicago Post Office
Goodsmith, H. M., 1610 Hinman Ave., Evanston
Gordon, R. H., Harris Trust & Savings Bank
Gorman, L. J., Armour Car Lines
Goudy, A. E., Victor Electric Co.

- Gould, C. A., Denton & Anderson
 Gould, G. K., Harris Trust & Savings Bank
 Granborn, Oscar, Chicago City Ry. Co.
 Grawoig, Herman, Superior Type-setting Co.
 Gray, J. G., R. R. Donnelley & Sons Co.
 Greenberg, A. B., Clemetsen Co.
 Gries, H. H., Osgood Co.
 Grigg, J. G., C. & E. I. R. R.
 Groebe, W. C., West Englewood Ashland State Bank
 Groves, J. P., Armour & Co.
 Gullikson, H. D., 16 E. Pearson St.
 Gwathmey, R. E., Clarke L. Poole & Co.
 Hagen, I. E., J. V. Farwell Co.
 Halstead, J. R., Brunswick-Balke-Collender Co.
 Halvorsen, Oliver, C. M. & St. P. R. R.
 Hansen, H. S., Public Service Co., Evanston
 Harms, A. W., Marshall Field & Co.
 Harms, A. T., Dolton, Ill.
 Harms, John, Jr., First National Bank, Dolton
 Harris, A. J., Harris Grocery & Market
 Harrison, Eugene, I. C. R. R. Co.
 Hartmann, H. G., C. D. Osborn Co.
 Hartwig, H. A., A. C. McClurg & Co.
 Hattstaedt, Alma, M. Wormser
 Hausdorf, Anita, Weber Bros. Metal Works
 Hausser, A. H. M., Union Tube Station, Chicago Postoffice
 Hawkins, R. W., H. Channon Co.
 Healy, P. J., 6149 Justine St.
 Heavener, R. W., Hiawatha, Utah
 Hecht, W. C., Continental Insurance Co.
 Hedlund, R. B., Illinois Malleable Iron Co.
 Heffron, Mary, Continental Casualty Co.
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Index

- Accounting, evening courses, 10-19
Accounting, day courses, 55, 57
Administration, Business, 10, 50
Admission, 43; day course, 50
Advanced Standing, 43
Advertising, 10. See Psychology, 36;
organization, 30, 31
Alumni, 49
Auditing, 15, 16, 17

Banking, 10, 20, 21, 24, 54, 57
Bookkeeping, 19, 20
Bureau of Employment, 45
Business Administration, 10, 50
Business Law, 23, 24, 25, 57
Business Organization, 29, 30, 57
Business Psychology, 36, 37, 65

Calendar, 3
Certified Public Accountant, 46
Chemistry, 66
College of Liberal Arts, 52
Commerce Club, 46
Commercial Associations, Activity
and Management of, 57
Commercial Organization, 30, 31, 57
Commercial Secretaries, 55
Corporation Finance, 21, 22
Credit, 20; organization, 30, 31

Day Courses, 50
Debating Club, 47
Degrees, B.B.A. and B.S., 50
Diploma in Commerce, 43

Economics Department, 58
Economics, Principles of, 32, 33
Employment, 45
Engineering, 58
English, 40, 41, 42, 62
Evening Courses, 10
Examinations, 44

Factory Management, 10, 33, 34, 54,
58
Faculty, 4
Fees and Expenses, 47, 68
Finance, 10, 20, 21, 54
Foreign Trade, 27, 28, 56, 58
French, 42, 63

Geology, 67
German, 63
Grades of Scholarship, 44, 45

History, 64

Industrial Consolidation, 34, 35
Industrial Relations, 36
Interstate Commerce, 39, 58
Investments, 21, 22

Joseph Schaffner Prize, 45, 49

Languages, 40, 41, 42, 62, 63
Law, 23, 24, 25, 36, 38, 39, 57
Law and Policy of Industrial Com-
binations, 36
Lecturers, 6
Library, 9, 45
Lydians, 46

Management, Business, 29, 30
Mathematics, 64
Merchandising, 31, 32, 53
Money, Banking and Credit, 20, 21

Opening Night, 44
Organization, courses in, 29, 30, 33,
34, 57

Physics, 67
Prizes and Honors, 45, 49
Psychology, 36, 37, 65, 66
Public Speaking, 41, 42

Quiz, C. P. A., 18

Refunds, 48
Register of Students, 69
Registration, 44
Requirements for Admission, 43, 50
Requirements for Diploma, 43; for
degree, 50
Resources and Trade, 25, 26, 58
Retail Merchandising, 31, 32

Scholarships, 45
Science, 66
Secretaries, Commercial, 55
South American Trade, 27, 58
Spanish, 42, 63
Statistics, 37, 38
Students' Organizations, 46, 47
Suggested Schedules, 10, 53, 54, 55,
56

Transportation, 38, 39, 58
Tuition, 47; day courses, 68



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